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Taxonomy & Inventories

Quantifying diversity and growth form distribution of scleractinian corals, in Mangrove Bay, El Qoseir, Egypt

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Abstract

Background

Coral reefs provide habitat for approximately 25% of all extant marine species, including 845 species of scleractinian corals. These rich ecosystems are becoming increasingly degraded in many regions by a range of anthropogenic factors, including recurrent bleaching episodes associated with rising sea surface temperatures. Within the northern Red Sea, coral reef communities appear to be faring relatively better than global trends and continue to exhibit remarkable diversity and thermal tolerance. However, recent reports of coral bleaching in the region highlight the urgent need for comprehensive ecological surveys to provide a baseline for long-term monitoring of biodiversity and

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potential species loss. This field report aims to support the tracking of diversity and growth form distributions of scleractinian corals at two reef sites at Mangrove Bay, El Qoseir, Egypt. Over time, it is our hope that such reports will contribute to broader databases and analyses focused on the biodiversity of reef-building coral species in the northern Red Sea.

New information

This study presents the first comprehensive checklist of scleractinian coral species (Scleractinia Bourne, 1900) in Mangrove Bay, El Qoseir, Egypt. As a result of our 2023 field survey, we identified a total of 68 species across 29 genera and 14 families, spanning six reef habitats — three per study site — at two study locations (sheltered and current-exposed), with depths ranging from 0 to 9.5 m. We found that both scleractinian coral diversity and coral growth forms varied amongst the six habitats. Branching corals were found in each habitat, but were particularly abundant at the current-exposed reef edge, where they covered 67% of the habitat. Encrusting and massive corals became more prevalent with increasing depth at both study sites, with massive corals covering 72% at the sheltered deeper reef slope and encrusting corals covering 24% at the current-exposed deeper reef slope. Species of the genus *Porites* dominated the sheltered site at all depths and the deeper reef slope at the current-exposed site, while *Pocillopora verrucosa* was most abundant at the exposed site's reef edge and shallow slope.

We provide photographs confirming these new records and access to the raw data on the abundance, distribution and conservation status of these taxa. Forty-three percent of the scleractinian species are classified as "Least Concern," but six are identified as "Vulnerable" (9%). Reef cover analyses revealed algae as the dominant group in most habitats, while scleractinian coral cover ranged between approximately 17% at the current-exposed reef edge and almost 35% at the current-exposed shallow reef slope. *Millepora* contributed the most at the exposed reef edge with nearly 28% cover, but was scarce elsewhere; soft corals exhibited their highest abundance on the deeper slope.

Our observations serve as a critical baseline for future research and conservation efforts at Mangrove Bay by presenting an initial inventory of the local scleractinian communities and emphasise the importance of detailed species data in understanding and preserving coral reef ecosystems.

Keywords

coral reefs, Anthozoa, Scleractinian, northern Red Sea, coral community composition, Line Intercept Transect (LIT), coral biodiversity, coral cover

Introduction

Coral reefs support the greatest biodiversity of marine organisms on Earth (Fisher et al. 2015, Anthony et al. 2020) and host more than 845 known reef-building scleractinian coral species worldwide (Veron et al. 2015, LaJeunesse et al. 2018). Despite their ecological and evolutionary significance, it is estimated that at least 50% of the world's coral reefs have already been decimated or severely damaged since the 1950s (Eddy et al. 2018, Eddy et al. 2021) due to global warming, pollution, overfishing and habitat destruction (Harborne et al. 2017). In particular, rising sea surface temperatures associated with global warming, have led to recurrent pan-tropical coral bleaching events in recent decades (Hughes et al. 2017) and remain the principal threat to coral reefs today. Under continued global warming, severe repercussions for coral reefs and the rich biodiversity they house are expected by the end of the century (Couce et al. 2013, Freeman et al. 2013, Jones et al. 2019). However, despite the current diminished state of many coral reefs worldwide, coral reef communities in the northern Red Sea have fared relatively well to pan-tropical bleaching events until recently, with the region often considered a potential refuge (Osman et al. 2018).

Due to their high diversity and ability to tolerate elevated temperatures, Red Sea scleractinians — particularly those in the northern Red Sea — have garnered significant interest in recent years (Hoegh-Guldberg et al. 2018, Fine et al. 2019, Banc-Prandi et al. 2022, Eladawy et al. 2022). Previous inventories have identified 346 scleractinian coral species throughout the Red Sea, with approximately 307 species in the north and central Red Sea and 200 species along the 1800 km fringing reefs of the Egyptian coastline (PERGSA 2010, DiBattista et al. 2016). Coral diversity in the northern Red Sea is supported by its unique thermal environment, where sea temperatures are cooler than in the central and southern Red Sea (Barreto et al. 2023). These lower temperatures, which are below the corals' physiological thermal maxima, may act as a buffer against thermal stress and bleaching events (Fine et al. 2013, Eladawy et al. 2022).

Given the potential significance of the northern Red Sea, detailed knowledge and data about scleractinian coral species' distributions are essential for understanding coral biodiversity and potential future species loss within the region. Here, we present the first comprehensive checklist of coral species observed at Mangrove Bay (El Qoseir), Egypt, ensuring efficient and open access to this information in alignment with the FAIR (Findable, Accessible, Interoperable, Reusable) principles (Wilkinson et al. 2016). This publication supports the long-term monitoring of Red Sea coral reefs by providing an ecological baseline for Mangrove Bay, including coral diversity, coral growth form distributions and coral cover. Our contribution is timely given the recent reports of significant coral bleaching events in the region (Hanafy and Dosoky 2023). We anticipate that this checklist will benefit the research community by contributing to broader databases and analyses of the Red Sea, including community analyses and evaluations of scleractinian species' distributions.

Materials and methods

Study area

Data collection took place between 19 and 25 October 2023, at Ducks Diving El Qoseir house reef, Mangrove Bay (Sharm Fugani, 25°52'12"N, 34°25'11"E), located approximately 29 km south of the coastal city of El Qoseir, Egypt (Fig. 1A). The two reef sites of Mangrove Bay, located 85 m apart, were selected as study locations due to their ease of accessibility and the good reef condition, which is largely due to the protective management by the local dive centre. The two sites are part of a typical modern Red Sea fringing reef system, characterised by its proximity to the shoreline, narrow reef flats and a comparatively steep reef slope (Loya 1972, Dullo and Montaggioni 1998, Mansour and Madkour 2015).

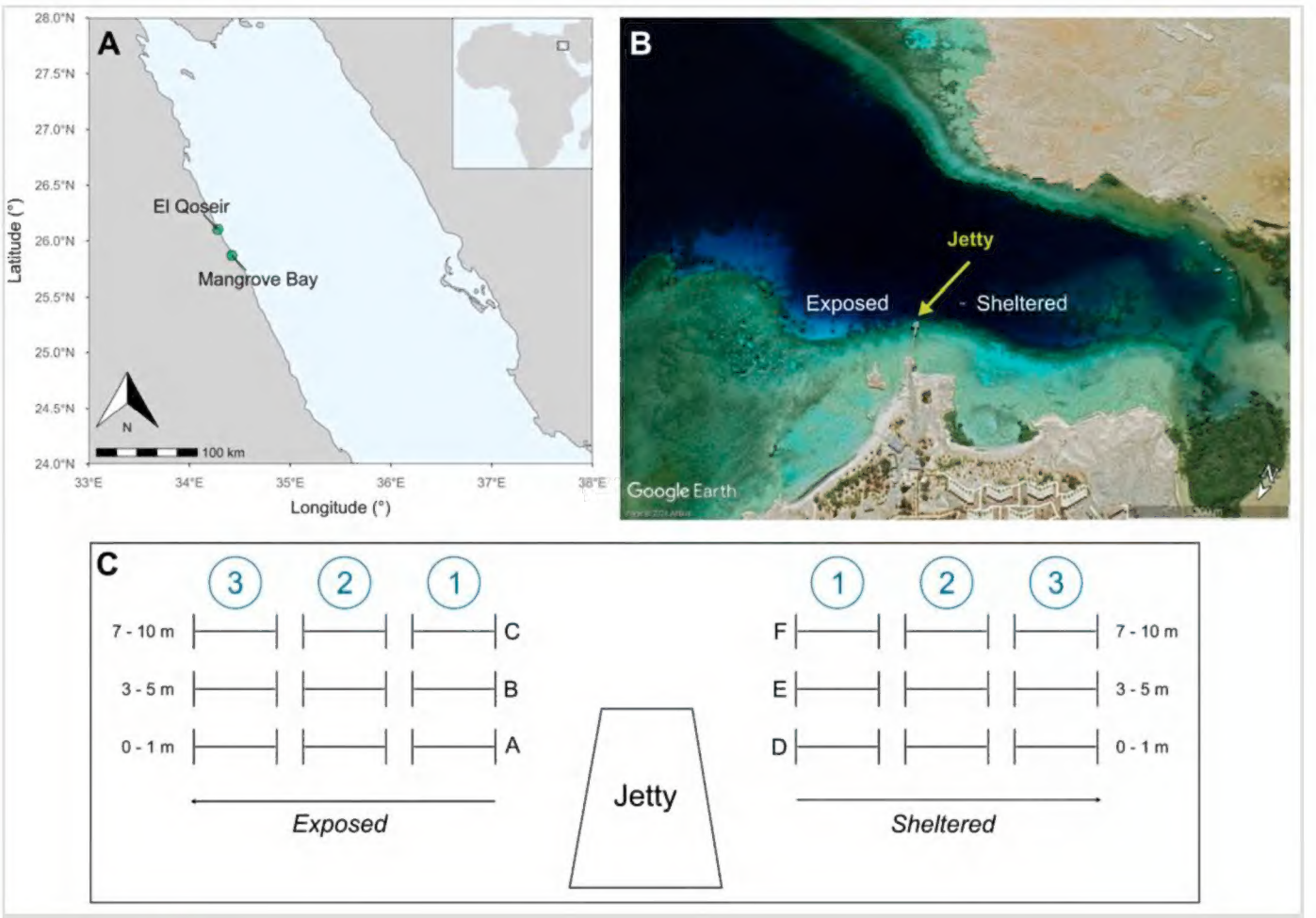

Figure 1. doi

Map showing the location of Mangrove Bay and El Qoseir in Egypt (**A**). Google Earth image depicting the two study locations (**B**). Layout of the Line Intercept Transects (**C**).

The house reef consists of a rocky intertidal zone and a sandy bottom, with an average depth of 15 m and a maximum depth of 30 m. As depth increased, the reef structure was progressively interrupted by stretches of sand. Sea surface temperatures in the northern Red Sea typically range from 21–28°C annually, with an average of 27°C in October (Nandkeolyar et al. 2013, Eladawy et al. 2017). The studied coral reef includes both a sheltered and a relatively more exposed site, the latter being predominantly current-exposed. A jetty served as a separation marker between them (Fig. 1B). Physical factors

such as current exposure significantly impact the distribution of coral communities and other marine organisms (Riegl and Piller 1997, Bayraktarov et al. 2013). Therefore, we collected data from both sites of the reef (sheltered and current-exposed).

Sampling protocol

To assess the coral community composition of the reef, the Line Intercept Transect (LIT) sampling protocol was employed (English et al. 1994). This method was elected over alternative sampling protocols (e.g. plotless methods) due to its standardised approach, recognised for its precision and replicability (English et al. 1994, Urbina-Barreto et al. 2021). Compared to plotless methods like time-based open search methods, LIT has the advantage of measuring the exact transition points of benthic organisms along the transect, thus providing a more accurate estimate of coral cover (Urbina-Barreto et al. 2021, Kuo et al. 2022). Although time-based methods might be more efficient for rapid assessments, they often compromise precision by relying on fewer data points and larger intervals which can overlook smaller or less abundant species (Kuo et al. 2022). The LIT method offers a standardised sampling protocol that minimises observer bias (e.g. identification expertise) and environmental bias (e.g. visibility conditions). As highlighted by Kuo et al. (2022), the LIT method provides a detailed assessment of benthic community structure, particularly when precise monitoring of coral cover and coral species diversity is the goal (Urbina-Barreto et al. 2021, Kuo et al. 2022). By using LIT, we captured multiple characteristics of the reef, such as biodiversity and coral cover, allowing future surveys to fully replicate our sampling approach to monitor these attributes. In this study, we applied the LIT method across different depths to capture variations in benthic communities at three depths.

At each study site, three replicate LITs, each with a minimum transect length of 15 m, were deployed at three depths: reef edge (0–1 m), shallow reef slope (3.7–4.75 m) and deeper reef slope (7.2–9.5 m). This methodology covered six habitats in total: sheltered reef edge, sheltered shallow reef slope, sheltered deeper reef slope, current-exposed reef edge, current-exposed shallow reef slope and current-exposed deeper reef slope. Transects were laid out using measurement tapes, with each transect replicate separated by a distance of at least 5 m (Fig. 1C). Each transect line was stretched tightly while following the horizontal reef contour, ensuring that it did not exceed a maximum distance of 15 cm from the substrate (English et al. 1994), (Fig. 2). A total of 18 transects were deployed, nine on each side of the jetty. Geographic coordinates were recorded for each site using the Garmin GPSMAP® 67 and using the World Geodetic System 1984 (WGS84).

Data collection and analysis

Observational transect data were recorded via snorkelling (reef edge) and SCUBA (self-contained underwater breathing apparatus) diving surveys (reef slope). While following the transect line, all benthic organisms (e.g. corals, algae or molluscs) and substrate types (e.g. sand, rubble or rock) located directly beneath the measuring tape were

recorded on a slate, including the length they covered along the transect line per occurrence (English et al. 1994; Table 1). A "gap" was noted when, 15 cm below the measuring tape, there was neither coral framework nor other substrate. As these added no data, they were excluded from further analysis. Scleractinian coral morphology and growth form were also documented. This was necessary because, although a single coral species can exhibit multiple growth forms, coral morphology tends to shift with increasing depth, independent of taxonomy (Kahng et al. 2019, Kramer et al. 2020).

Figure 2. doi

The transect line was stretched horizontally following the reef contour. Every biotic and abiotic component directly beneath the line was recorded. Photo credit: Victor Sebastian Scharnhorst.

Table 1.

Life form categories and to classify coral growth forms adapted from English et al. (1994).

Categories		Code
Scleractinian Corals		
	Dead Coral	DC
	Dead Coral with Algae	DCA
	Acropora Coral branching	ACB
	Acropora Coral digitate	ACB
	Coral branching	CB
	Coral encrusting	CE

Categories		Code
	Coral foliaceous	CF
	Coral massive	CM
	Coral mushroom	CMR
	Coral submassive	CS
Algae		
	Algal Assemblage	AA
	Coralline Algae	CA
	Macro Algae	MA
	Turf Algae	TA
Millepora		
	Millepora dichotoma	CME
	Millepora exaesa	
	Millepora platyphylla	
	Millepora sp.	
Benthic Fauna		
	Mollusc	MOLL
	Other Species	OT
	Soft Coral	SC
	Sponge	SP
Substrate Types		
	Coral rubble	CR
	Rock	R
	Sand	S

As the LIT method has been shown to effectively capture a substantial diversity of coral species (Mohammed 2012) and given that photography has also been proven to yield high species counts (Alexandroff et al. 2016), we took three photographs of each intersected coral colony using an Olympus TG-6 underwater camera: an overview showing the growth form, a colony-focused image and a close-up of individual polyps and corallites.

All data from both reef sites at Mangrove Bay — 18 transects — were compiled into a single dataset for efficient data handling. This dataset includes information on transects, habitat details, depth measurements, exposure levels, coral growth forms and the type of

abiogenic or biogenic benthic component directly beneath the measuring tape at the time of data collection. The data have been uploaded to a Zenodo public repository, accessible via https://doi.org/10.5281/zenodo.13926187. Using this dataset, we determined coral cover and the percentage of each coral growth form relative to the total coral cover, as well as the percentage of each abiogenic or biogenic benthic component. The transect length was defined as the total length of all categories, excluding gaps, as these provide no information and would compromise the accuracy of our assessment. This approach allows for a comprehensive analysis of coral reef biodiversity and provides a broader ecological context.

A key element of our species inventory is the checklist created using the Darwin Core (DwC) standard (Darwin Core Maintenance Group 2021). The DwC standard provides a structured framework for documenting species data, including taxonomy, distribution and occurrence. Applying DwC terms enhances data usability and facilitates reliable exchange and interpretation (Reyserhove et al. 2020, Darwin Core Maintenance Group 2021). A checklist adhering to this standard allows for easy tracking of changes in species presence, abundance and range. The dataset we compiled and used to create the checklist has also been uploaded to Zenodo (https://doi.org/10.5281/zenodo.13935417).

Species identification

Species identification was performed on land by comparing the photographed morphology and growth forms of the scleractinians observed underwater with the *Corals of the World* database (http://www.coralsoftheworld.org/page/home/) (Veron et al. 2016) and relevant literature (Veron and Pichon 1976, Veron and Pichon 1979, Scheer and Pillai 1983, Hoeksema 1989, Sheppard and Sheppard 1991, Huang et al. 2014, Bouwmeester et al. 2015, Veron et al. 2015, Arrigoni et al. 2016a, Arrigoni et al. 2016b, Arrigoni et al. 2017, Arrigoni et al. 2019, Arrigoni et al. 2020). The World Register of Marine Species (WoRMS) (https://www.marinespecies.org/) was used for the latest taxonomic classification of the observed corals (Ahyong et al. 2024).

Scleractinian species at Mangrove Bay, Egypt

Family Acroporidae Verrill, 1901

Acropora digitifera (Dana, 1846)

Materials

a. scientificName: *Acropora digitifera*; scientificNameID: urn:lsid:marinespecies.org:taxname:207045; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt

(Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 1; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed reef edge; occurrenceRemarks: Observed and photographed on a current-exposed reef edge; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 234084F0-C800-58F8-89A9-D7EC13813727

b. scientificName: *Acropora digitifera*; scientificNameID: urn:lsid:marinespecies.org:taxname:207045; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 1; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 19-10-2023; year: 2023; habitat: sheltered reef edge; occurrenceRemarks: Observed and photographed on a sheltered reef edge; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 6CE31C97-1A22-54A0-96D2-51E023343597

Conservation status: Near Threatened

Notes: Fig. 3 .

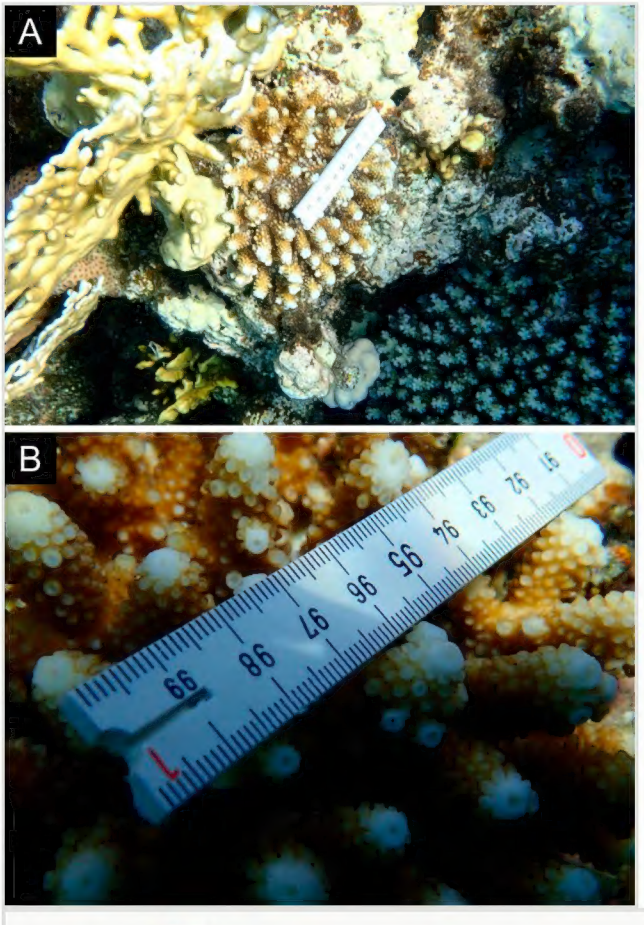

Figure 3. doi

The growth form and appearance of *Acropora digitifera* in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Antonia Auer, Theda Schöchtner, Gözde Özer.

Acropora hemprichii (Ehrenberg, 1834)

Materials

a. scientificName: *Acropora hemprichii*; scientificNameID: urn:lsid:marinespecies.org:taxname:288207; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 4.3; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 24-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed and photographed on a current-exposed shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 17B81438-B8C4-50F8-AB16-F506AF0F6FC5

b. scientificName: *Acropora hemprichii*; scientificNameID: urn:lsid:marinespecies.org:taxname:288207; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 05A515FF-C43B-5B1A-A40C-609A536B62E0

c. scientificName: *Acropora hemprichii*; scientificNameID: urn:lsid:marinespecies.org:taxname:288207; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 3.7; maximumDepthInMeters: 4.75; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 23-10-2023; year: 2023; habitat: sheltered shallow reef slope; occurrenceRemarks: Observed and photographed on a sheltered shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: AA07BB31-711F-5AB8-A8EE-FCE754A24F6B

Conservation status: Vulnerable

Notes: Fig. 4 .

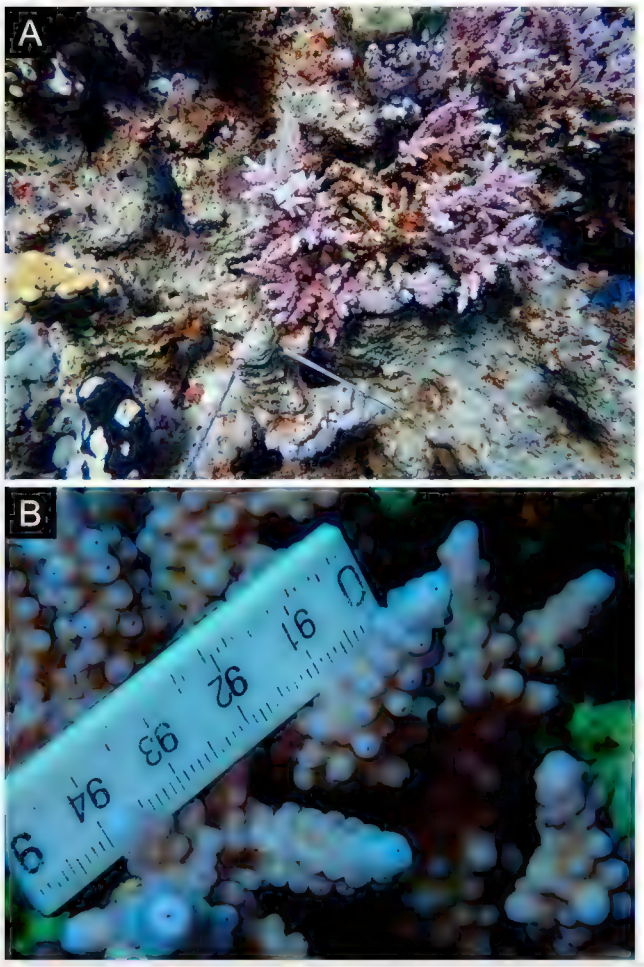

Figure 4. doi

The growth form and appearance of *Acropora hemprichii* in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Theres Koch.

Acropora spp. Oken, 1815

Materials

a. scientificName: *Acropora* spp.; scientificNameID: urn:lsid:marinespecies.org:taxname:205469; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Genus; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 1; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 23-10-2023; year: 2023; habitat: current-exposed reef edge; occurrenceRemarks: Observed and photographed on a current-exposed reef edge; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 7CF6B52B-34FF-513D-AD10-7FB82D06BCCB

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20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed and photographed on a current-exposed shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 76518BC5-7897-5407-96A4-08F4985B4DA8

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d. scientificName: *Acropora* spp.; scientificNameID: urn:lsid:marinespecies.org:taxname:205469; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Genus; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 1; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 19-10-2023; year: 2023; habitat: sheltered reef edge; occurrenceRemarks: Observed and photographed on a sheltered reef edge; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 4917B014-C337-5DE1-B279-449C89D8EAB6

e. scientificName: *Acropora* spp.; scientificNameID: urn:lsid:marinespecies.org:taxname:205469; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Genus; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 3.7; maximumDepthInMeters: 4.75; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 23-10-2023; year: 2023; habitat: sheltered shallow reef slope; occurrenceRemarks: Observed and photographed on a sheltered shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 80BE18F6-BE98-5BB3-AE16-8EA4227DA552

f. scientificName: *Acropora* spp.; scientificNameID: urn:lsid:marinespecies.org:taxname:205469; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Genus; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 7.2; maximumDepthInMeters: 9.5; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum:

WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 23-10-2023; year: 2023; habitat: sheltered deeper reef slope; occurrenceRemarks: Observed and photographed on a sheltered deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 9DA6C8FD-D5BA-5973-BCF9-0DF994B9E8F9

Conservation status: Unknown

Notes: Fig. 5; eight distinguished morphotypes.

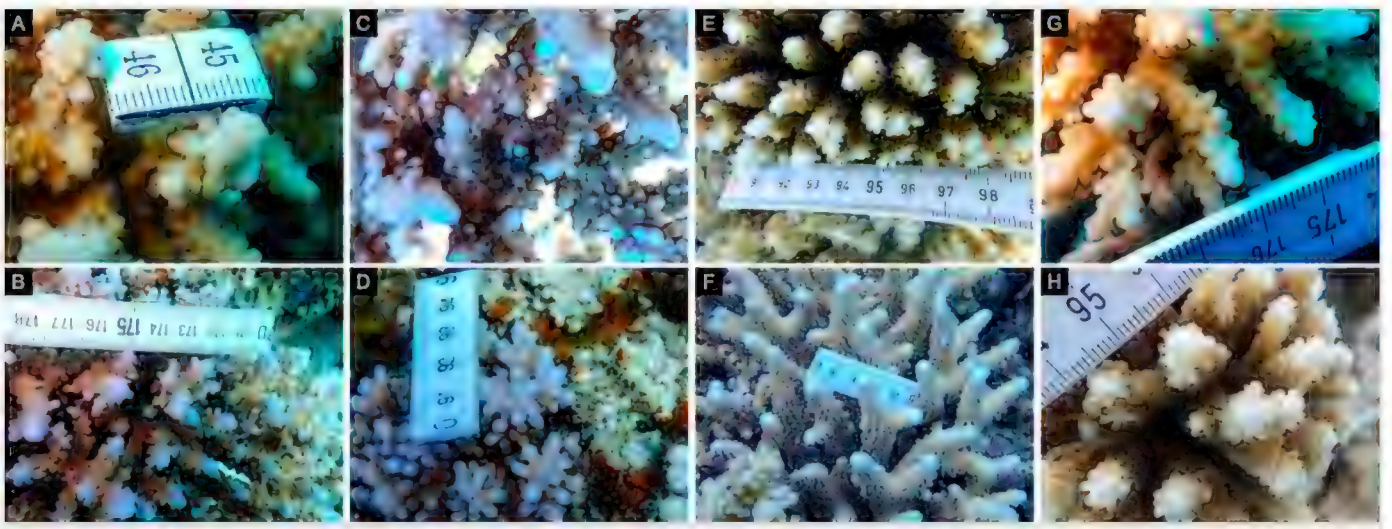

Figure 5. doi

Amongst the *Acropora* colonies identified to genus level, eight morphotypes (**A**—**H**) were distinguished. Photo credits: (**A**) Lewis Alan Jones; (**B**), (**C**), (**F**) Joseph Wallace Daurella; (**D**) Theres Koch; (**E**), (**H**) Antonia Auer, Theda Schöchtner, Gözde Özer; (**G**) Victor Sebastian Scharnhorst.

Astreopora myriophthalma (Lamarck, 1816)

Materials

a. scientificName: *Astreopora myriophthalma*; scientificNameID: urn:lsid:marinespecies.org:taxname:207128; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 4.3; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 24-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed and photographed on a current-exposed shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: BF2767C6-BCBB-5338-9BD7-361A7B7F636F

b. scientificName: *Astreopora myriophthalma*; scientificNameID: urn:lsid:marinespecies.org:taxname:207128; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located

on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 6EADA401-C476-580E-A08B-AEC2F4703F31

Conservation status: Least Concern

Notes: Fig. 6 .

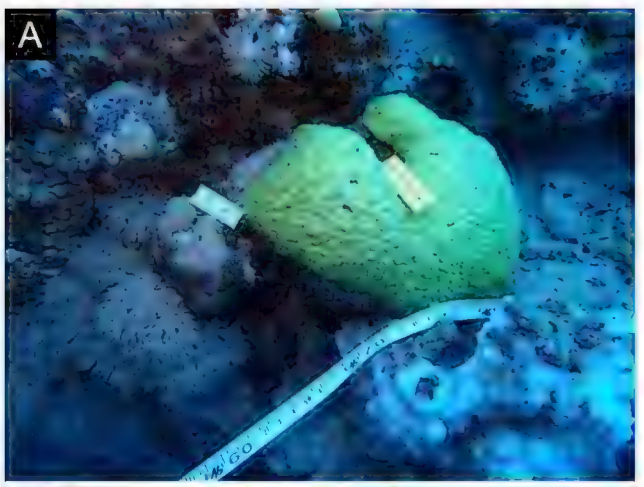

Figure 6. doi

The growth form and appearance of *Astreopora myriophthalma* in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Victor Sebastian Scharnhorst.

Montipora crypta Turak, DeVantier & Veron, 2000

Material

a. scientificName: *Montipora crypta*; scientificNameID: urn:lsid:marinespecies.org:taxname:1617333; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude:

E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 4D1C95A2-2648-5F00-9239-6CDC0ECA84D2

Conservation status: Near Threatened

Notes: Fig. 7 .

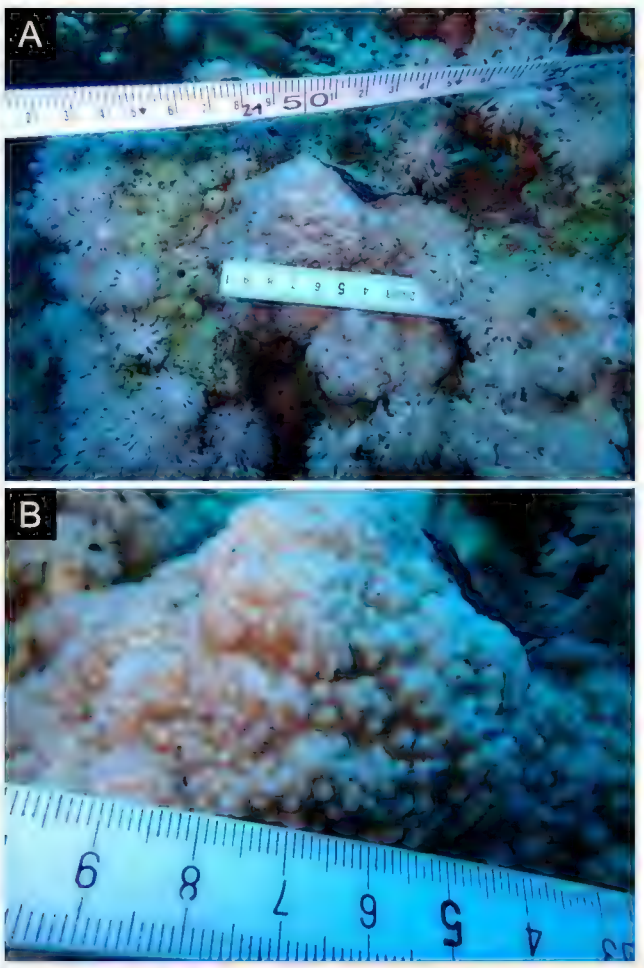

Figure 7. doi

The growth form and appearance of *Montipora crypta* in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Victor Sebastian Scharnhorst.

Montipora danae Milne Edwards & Haime, 1851

Material

a. scientificName: *Montipora danae*; scientificNameID: urn:lsid:marinespecies.org:taxname:207152; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate:

22-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 431E7F81-E213-506F-9DB0-396E5ABDAD94

Conservation status: Least Concern

Notes: Fig. 8 .

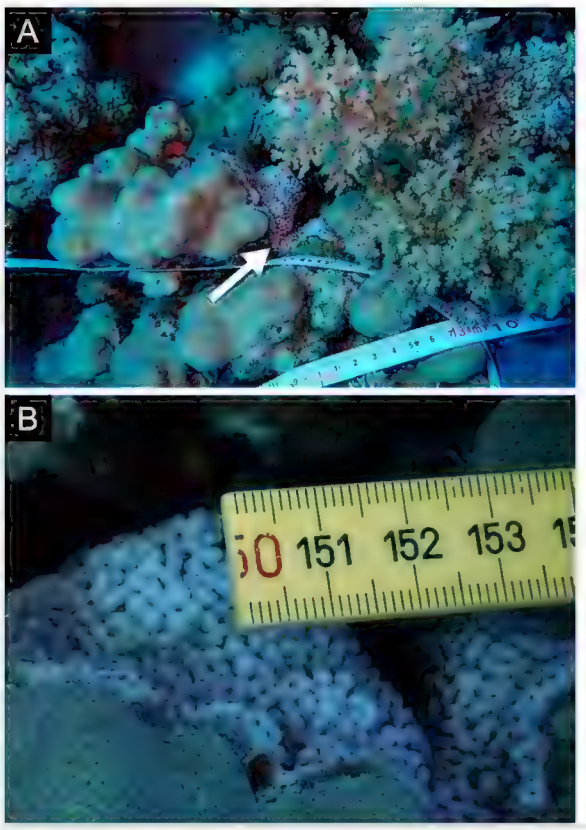

Figure 8. doi

The growth form and appearance of *Montipora danae* (bleached) in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Theres Koch.

Montipora efflorescens Bernard, 1897

Materials

a. scientificName: *Montipora efflorescens*; scientificNameID: urn:lsid:marinespecies.org:taxname:207163; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 4.3; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 24-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed and photographed on a current-exposed shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: CD7502CE-2893-5276-9547-A4553BA1DEC7

b. scientificName: *Montipora efflorescens*; scientificNameID: urn:lsid:marinespecies.org:taxname:207163; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 24-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: EB706A08-1FAF-55DE-9736-D1149C784DF8

Conservation status: Near Threatened

Notes: Fig. 9 .

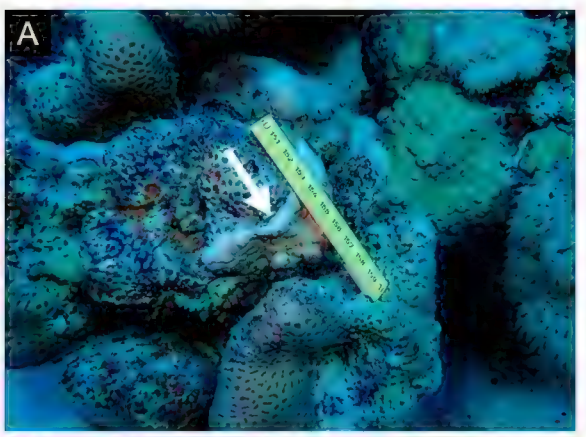

Figure 9. doi

The growth form and appearance of *Montipora efflorescens* (bleached) in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Theres Koch.

Montipora cf. *grisea* Bernard, 1897

Material

a. scientificName: *Montipora* cf. *grisea*; scientificNameID: urn:lsid:marinespecies.org:taxname:287709; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located

on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 4.3; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 24-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed and photographed on a current-exposed shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: ED26F58A-830E-5BE0-9E11-10541184C1F8

Conservation status: Least Concern

Notes: Fig. 10 .

Figure 10. doi

The growth form and appearance of *Montipora* cf. *grisea* in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Joseph Wallace Daurella.

Montipora maeandrina (Ehrenberg, 1834)

Materials

a. scientificName: *Montipora maeandrina*; scientificNameID: urn:lsid:marinespecies.org:taxname:207188; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 4.3; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′;

decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 24-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed and photographed on a current-exposed shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 0B3BF3B2-8A74-5617-A260-7EEDB26B5375

b. scientificName: *Montipora maeandrina*; scientificNameID: urn:lsid:marinespecies.org:taxname:207188; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 05B82702-12D8-5F08-9651-61F3FF2F78EB

c. scientificName: *Montipora maeandrina*; scientificNameID: urn:lsid:marinespecies.org:taxname:207188; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 3.7; maximumDepthInMeters: 4.75; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 25-10-2023; year: 2023; habitat: sheltered shallow reef slope; occurrenceRemarks: Observed and photographed on a sheltered shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: E85E9A47-AA94-5720-BCC6-41539FAEBD8B

d. scientificName: *Montipora maeandrina*; scientificNameID: urn:lsid:marinespecies.org:taxname:207188; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 7.2; maximumDepthInMeters: 9.5; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 23-10-2023; year: 2023; habitat: sheltered deeper reef slope; occurrenceRemarks: Observed and photographed on a sheltered deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: C2192C7C-5B74-5012-8F1E-C85538A79F4F

Conservation status: Vulnerable

Notes: Fig. 11 .

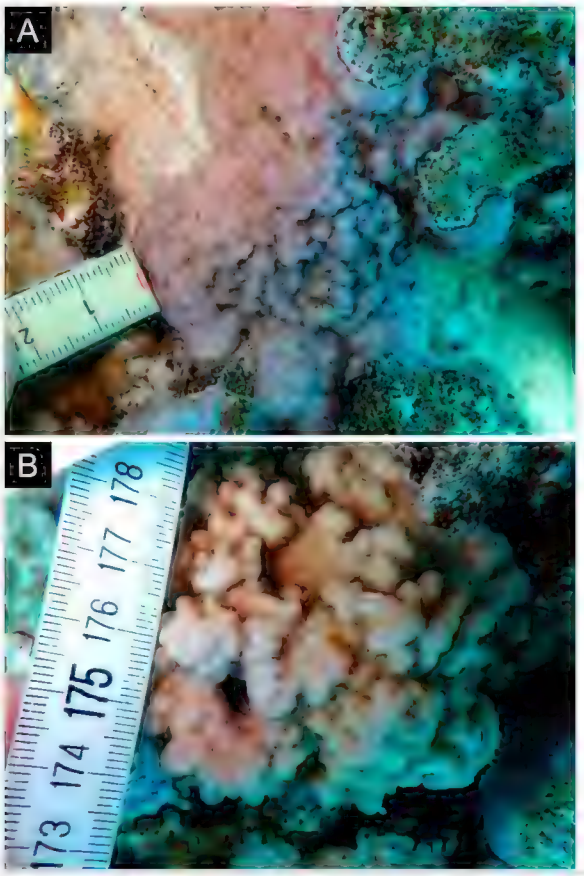

Figure 11. doi

The growth form and appearance of *Montipora maeandrina* in the reef are shown in (**A**), while (**B**) provides a close-up of another colony. Photo credits: Victor Sebastian Scharnhorst.

Montipora spp. Blainville, 1830

Materials

a. scientificName: *Montipora* spp.; scientificNameID: urn:lsid:marinespecies.org:taxname:203834; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Genus; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 4.3; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed and photographed on a current-exposed shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 550F703B-2189-540F-B6DF-9B0715420BAD

b. scientificName: *Montipora* sp.; scientificNameID: urn:lsid:marinespecies.org:taxname:203834; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Genus; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 3.7; maximumDepthInMeters: 4.75; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 25-10-2023; year: 2023; habitat: sheltered shallow reef slope; occurrenceRemarks: Observed and

photographed on a sheltered shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 64835677-69D7-5737-A4FF-4C52314F5F22

Conservation status: Unknown

Notes: Fig. 12; four distinguished morphotypes.

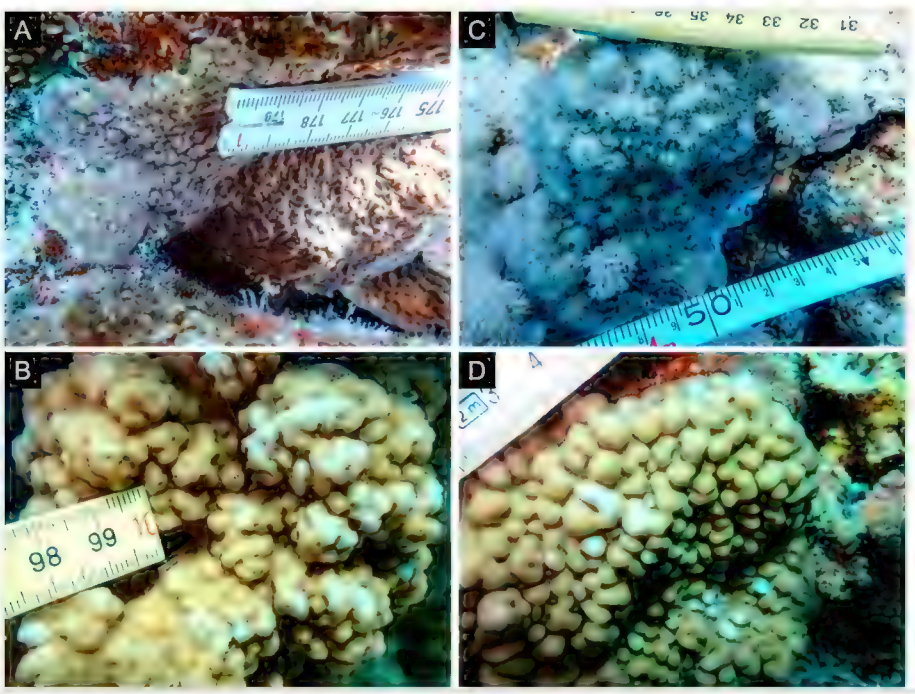

Figure 12. doi

Amongst the *Montipora* colonies identified to genus level, four morphotypes (**A**—**D**) were distinguished. Photo credits: (**A**), (**C**) Joseph Wallace Daurella; (**B**), (**D**) Victor Sebastian Scharnhorst.

Montipora tuberculosa (Lamarck, 1816)

Materials

a. scientificName: *Montipora tuberculosa*; scientificNameID: urn:lsid:marinespecies.org:taxname:207156; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 1; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 23-10-2023; year: 2023; habitat: current-exposed reef edge; occurrenceRemarks: Observed and photographed on a current-exposed reef edge; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 941F7AA6-6F1B-5AFD-8820-1E056DADFF7C

b. scientificName: *Montipora tuberculosa*; scientificNameID: urn:lsid:marinespecies.org:taxname:207156; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located

on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 4.3; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed and photographed on a current-exposed shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 376F5D6A-149F-56E8-9A83-57B615D89988

c. scientificName: *Montipora tuberculosa*; scientificNameID: urn:lsid:marinespecies.org:taxname:207156; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 1; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 19-10-2023; year: 2023; habitat: sheltered reef edge; occurrenceRemarks: Observed and photographed on a sheltered reef edge; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: C452B179-F940-58C0-B6CC-23C79D922C0A

d. scientificName: *Montipora tuberculosa*; scientificNameID: urn:lsid:marinespecies.org:taxname:207156; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 7.2; maximumDepthInMeters: 9.5; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 23-10-2023; year: 2023; habitat: sheltered deeper reef slope; occurrenceRemarks: Observed and photographed on a sheltered deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: B2DE15C6-9363-5161-BEDE-616F2DDB350F

Conservation status: Least Concern

Notes: Fig. 13 .

Family Agariciidae Gray, 1847

Gardineroseris planulata (Dana, 1846)

Material

a. scientificName: *Gardineroseris planulata*; scientificNameID: urn:lsid:marinespecies.org:taxname:207274; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir;

minimumDepthInMeters: 3.7; maximumDepthInMeters: 4.75; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 25-10-2023; year: 2023; habitat: sheltered shallow reef slope; occurrenceRemarks: Observed and photographed on a sheltered shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: BB4537AB-8A2C-5D65-A4AD-5CAF558B6E87

Conservation status: Least Concern

Notes: Fig. 14.

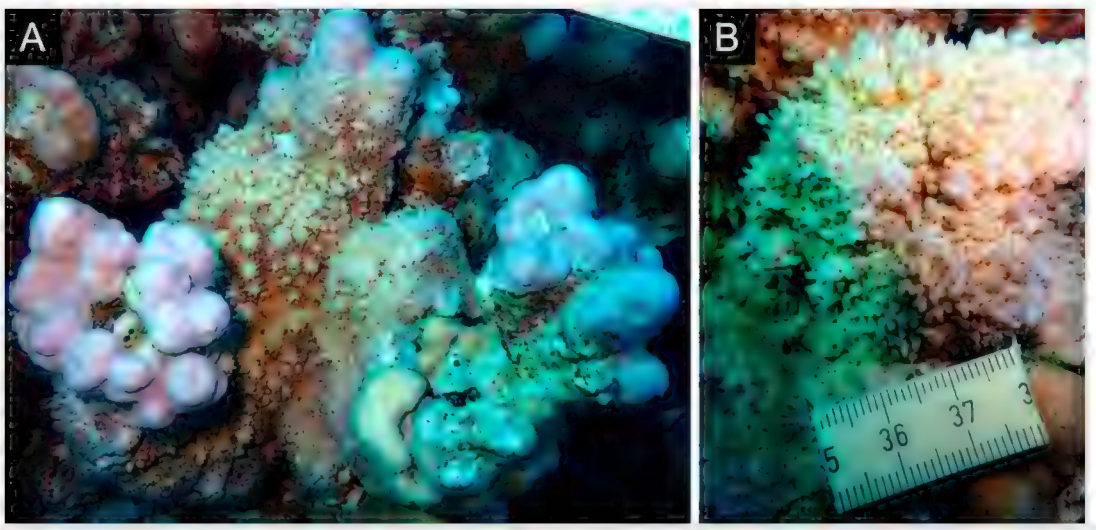

Figure 13. doi

The growth form and appearance of *Montipora tuberculosa* in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Lewis Alan Jones.

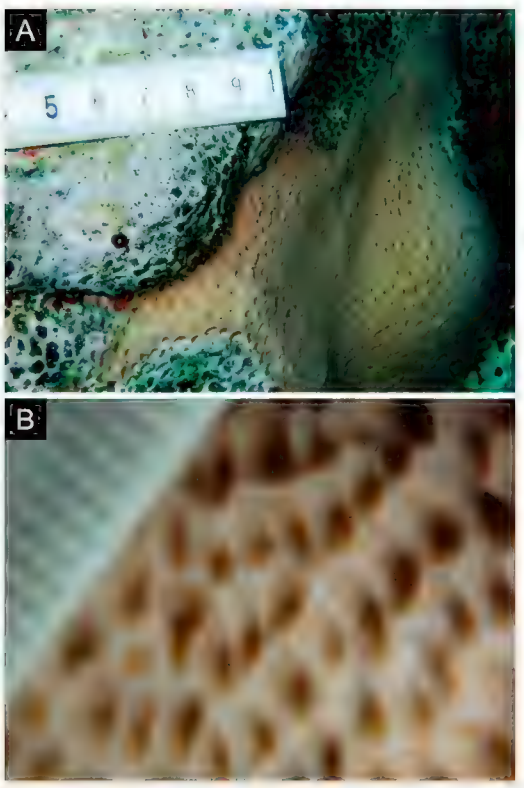

Figure 14. doi

The growth form and appearance of *Gardineroseris planulata* in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Theres Koch.

Leptoseris mycetoseroides Wells, 1954

Material

a. scientificName: *Leptoseris mycetoseroides*; scientificNameID: urn:lsid:marinespecies.org:taxname:207283; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 3.7; maximumDepthInMeters: 4.75; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 25-10-2023; year: 2023; habitat: sheltered shallow reef slope; occurrenceRemarks: Observed and photographed on a sheltered shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 13E6AAE5-CEE1-5C85-B6AA-A1D1EE676C16

Conservation status: Least Concern

Notes: Fig. 15 .

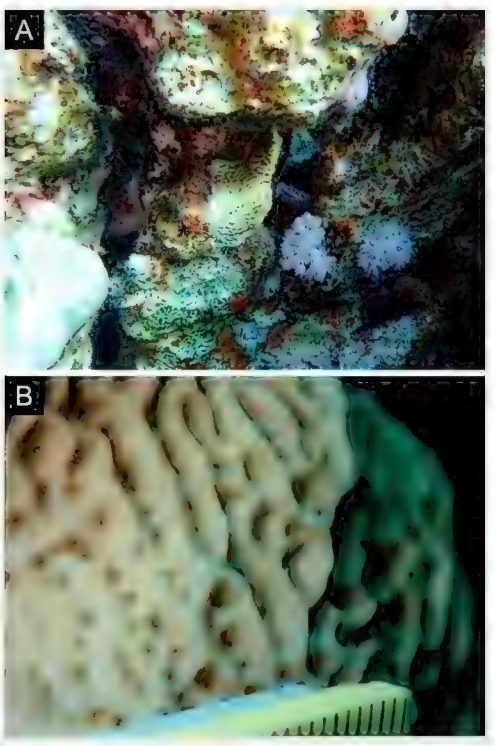

Figure 15. doi

The growth form and appearance of *Leptoseris mycetoseroides* in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Theres Koch.

Pavona diffluens (Lamarck, 1816)

Materials

a. scientificName: *Pavona diffluens*; scientificNameID: urn:lsid:marinespecies.org:taxname:207295; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr

al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 4.3; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed and photographed on a current-exposed shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 6A4753E9-1B14-5212-8182-EEE90CE4A86B

b. scientificName: *Pavona diffluens*; scientificNameID: urn:lsid:marinespecies.org:taxname:207295; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 7.2; maximumDepthInMeters: 9.5; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 25-10-2023; year: 2023; habitat: sheltered deeper reef slope; occurrenceRemarks: Observed and photographed on a sheltered deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: EEEB2E87-1BE2-55C8-AA09-A9D4A379F04F

Conservation status: Vulnerable

Notes: Fig. 16 .

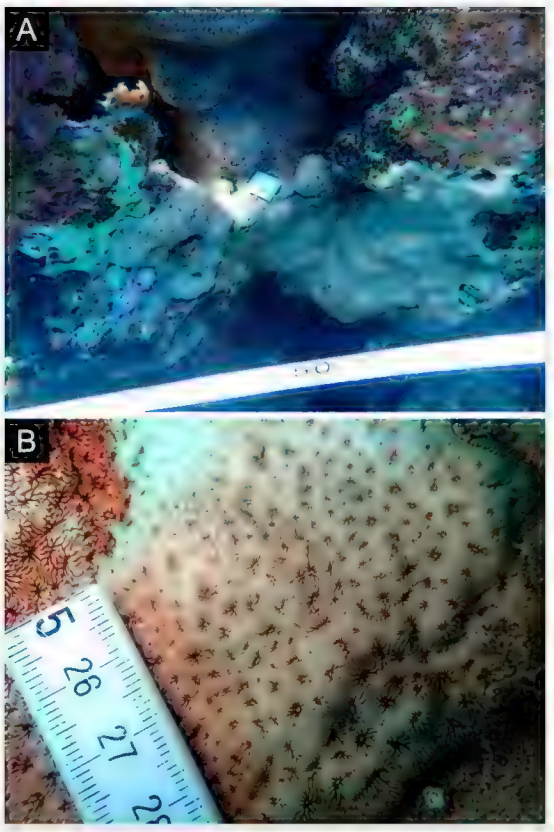

Figure 16. doi

The growth form and appearance of *Pavona diffluens* in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: (**A**) Lewis Alan Jones; (**B**) Victor Sebastian Scharnhorst.

Pavona spp. Lamarck, 1801

Materials

a. scientificName: *Pavona* sp.; scientificNameID: urn:lsid:marinespecies.org:taxname: 206614; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Genus; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 4.3; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed and photographed on a current-exposed shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 232BB3E2-252F-5B2F-8146-FE31FA671C90

b. scientificName: *Pavona* sp.; scientificNameID: urn:lsid:marinespecies.org:taxname: 206614; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Genus; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 1; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 20-10-2023; year: 2023; habitat: sheltered reef edge; occurrenceRemarks: Observed and photographed on a sheltered reef edge; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 2E5B04A6-BF2F-583D-B1C5-A81188DE392E

c. scientificName: *Pavona* sp.; scientificNameID: urn:lsid:marinespecies.org:taxname: 206614; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Genus; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 3.7; maximumDepthInMeters: 4.75; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 25-10-2023; year: 2023; habitat: sheltered shallow reef slope; occurrenceRemarks: Observed and photographed on a sheltered shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: F21EDB82-6C90-5EBE-8C28-C16CD6D539D7

Conservation status: Unknown

Notes: Fig. 17; one distinguished morphotype.

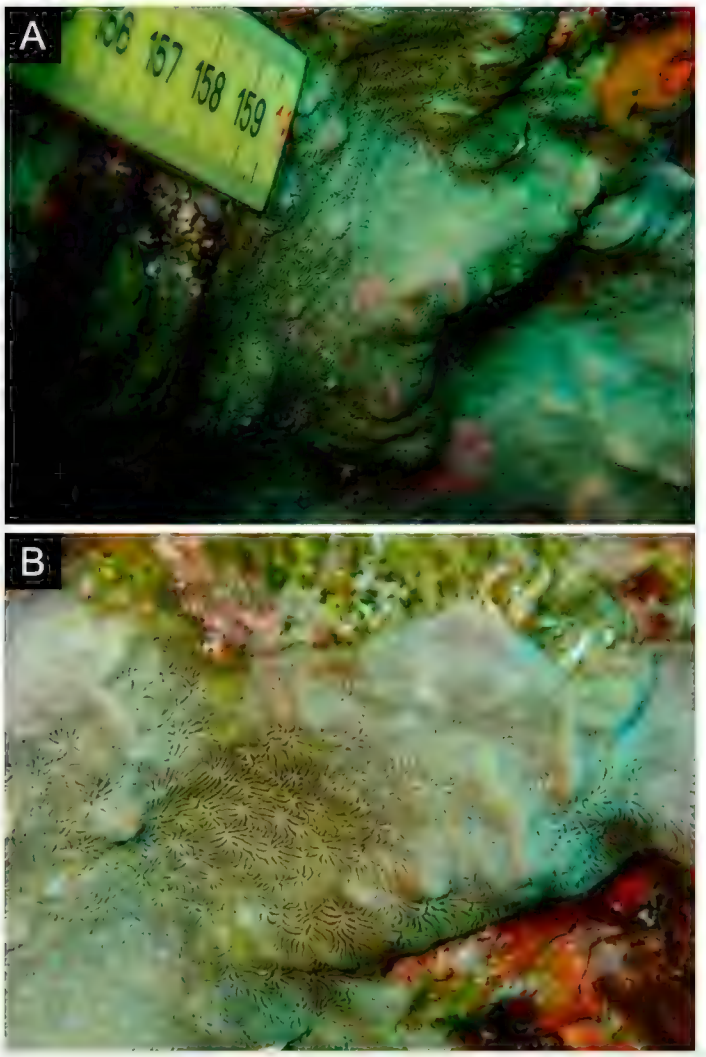

Figure 17. doi

Amongst the *Pavona* colonies identified only to genus level, one morphotype (**A—B**) was distinguished. Photo credits: Theres Koch.

Pavona varians (Verrill, 1864)

Materials

a. scientificName: *Pavona varians*; scientificNameID: urn:lsid:marinespecies.org:taxname:207303; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 4.3; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 24-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed and photographed on a current-exposed shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: C27173B7-E04B-55E3-8014-AEAA4B4C9483

b. scientificName: *Pavona varians*; scientificNameID: urn:lsid:marinespecies.org:taxname:207303; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters:

8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 66E91763-4638-5D01-B3A1-6253E56BA1F7

c. scientificName: *Pavona varians*; scientificNameID: urn:lsid:marinespecies.org:taxname:207303; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 1; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 24-10-2023; year: 2023; habitat: sheltered reef edge; occurrenceRemarks: Observed and photographed on a sheltered reef edge; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 5AB161BA-86A6-58AA-A8D5-1B378ADD5A8F

d. scientificName: *Pavona varians*; scientificNameID: urn:lsid:marinespecies.org:taxname:207303; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 3.7; maximumDepthInMeters: 4.75; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 23-10-2023; year: 2023; habitat: sheltered shallow reef slope; occurrenceRemarks: Observed and photographed on a sheltered shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 9A3063F3-E24A-5116-9CC2-BEB634D95DF6

e. scientificName: *Pavona varians*; scientificNameID: urn:lsid:marinespecies.org:taxname:207303; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 7.2; maximumDepthInMeters: 9.5; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 25-10-2023; year: 2023; habitat: sheltered deeper reef slope; occurrenceRemarks: Observed and photographed on a sheltered deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 7DE74121-8948-5C8D-9ECC-3B45FD0F4BAA

Conservation status: Least Concern

Notes: Fig. 18 .

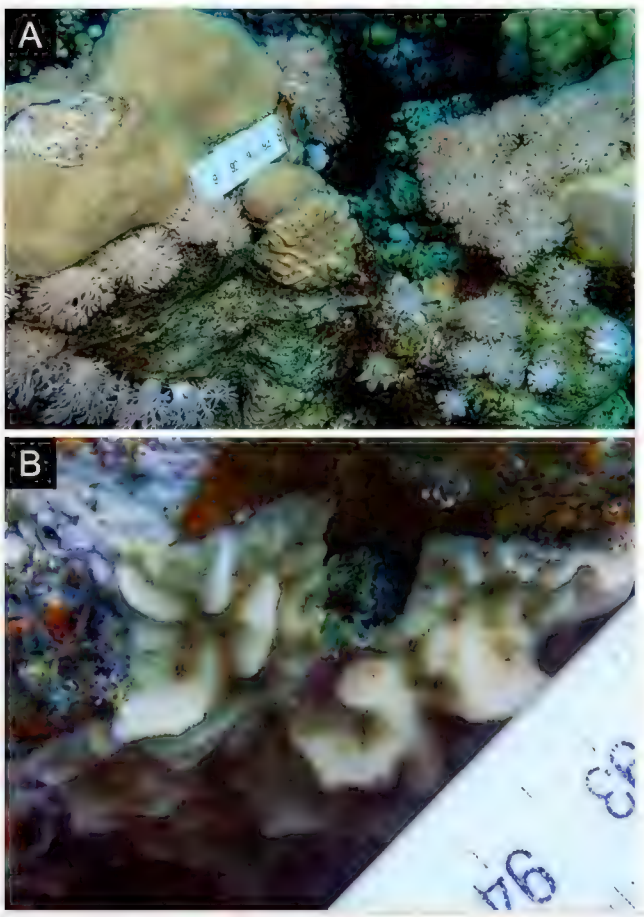

Figure 18. doi

The growth form and appearance of *Pavona varians* in the reef are shown in (**A**), while (**B**) provides a close-up of another colony. Photo credits: Theres Koch.

Family Astrocoeniidae Koby, 1890

Stylocoeniella cf. *guentheri* (Bassett-Smith, 1890)

Materials

a. scientificName: *Stylocoeniella* cf. *guentheri*; scientificNameID: urn:lsid:marinespecies.org:taxname:206948; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 4.3; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 24-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed and photographed on a current-exposed shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 460F4F9D-F269-5722-98F4-7E0C84A7C4EE

b. scientificName: *Stylocoeniella* cf. *guentheri*; scientificNameID: urn:lsid:marinespecies.org:taxname:206948; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir;

minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: A7E97706-4963-5220-8F70-6E2970E43B4E

Conservation status: Least Concern

Notes: Fig. 19; possible alternative: *Stylocoeniella armata* (Ehrenberg, 1834).

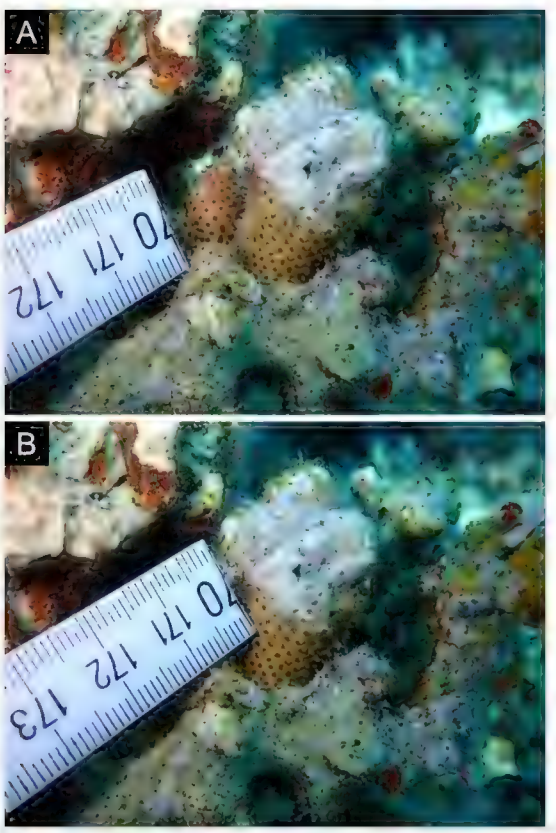

Figure 19. doi

The growth form and appearance of *Stylocoeniella* cf. *guentheri* in the reef are shown in (**A**), while (**B**) provides a closer-up of the colony. Photo credits: Victor Sebastian Scharnhorst.

Family Coscinaraeidae Benzoni, Arrigoni, Stefani & Stolarski, 2012

Coscinaraea monile (Forskål, 1775)

Materials

a. scientificName: *Coscinaraea monile*; scientificNameID: urn:lsid:marinespecies.org:taxname:207255; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 4.3; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84;

samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed and photographed on a current-exposed shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: A5557BEF-6330-576F-8E45-D2DF03332C48

b. scientificName: *Coscinaraea monile*; scientificNameID: urn:lsid:marinespecies.org:taxname:207255; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: FF0B2BDA-A64B-5DEA-98CA-98D4CDB5AA39

c. scientificName: *Coscinaraea monile*; scientificNameID: urn:lsid:marinespecies.org:taxname:207255; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 7.2; maximumDepthInMeters: 9.5; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 25-10-2023; year: 2023; habitat: sheltered deeper reef slope; occurrenceRemarks: Observed and photographed on a sheltered deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: E31D1F96-0940-5227-9668-147303D3CB80

Conservation status: Least Concern

Notes: Fig. 20 .

Family Dendrophylliidae Gray, 1847

Turbinaria mesenterina (Lamarck, 1816)

Material

a. scientificName: *Turbinaria mesenterina*; scientificNameID: urn:lsid:marinespecies.org:taxname:207511; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015;

decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 2887E521-8C8A-508F-A0C9-7BCB9F6B62F6

Conservation status: Vulnerable

Notes: Fig. 21 .

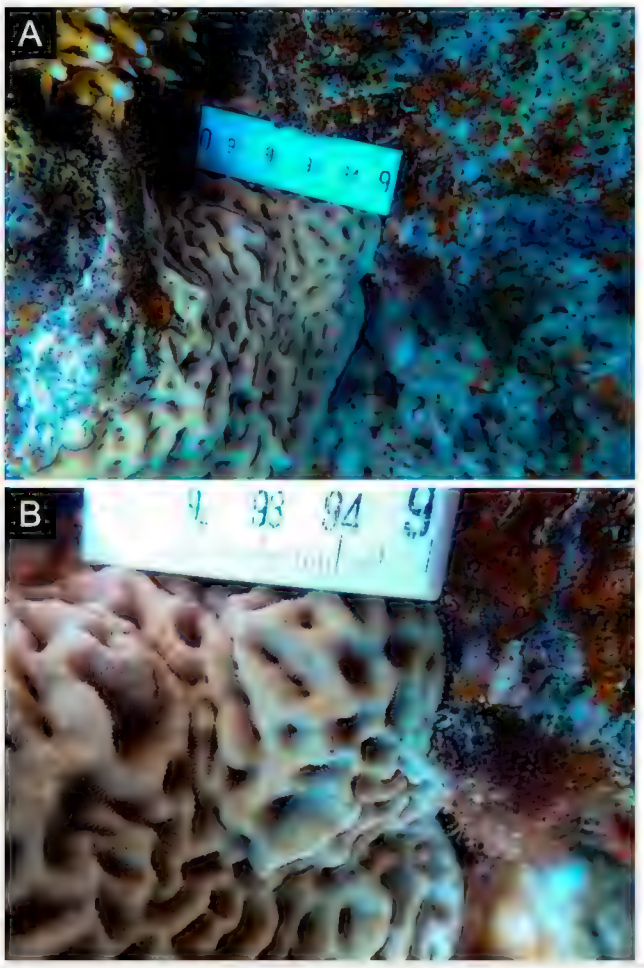

Figure 20. doi

The growth form and appearance of *Coscinaraea monile* in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Joseph Wallace Daurella.

Family Euphylliidae Milne Edwards & Haime, 1857

Galaxea fascicularis (Linnaeus, 1767)

Materials

a. scientificName: *Galaxea fascicularis*; scientificNameID: urn:lsid:marinespecies.org:taxname:207366; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 4.3; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′;

decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 24-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed and photographed on a current-exposed shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 1AADB492-604B-540E-BB84-B2D7AF2985F8

b. scientificName: *Galaxea fascicularis*; scientificNameID: urn:lsid:marinespecies.org:taxname:207366; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 24-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 624C41AB-F8F3-546B-86B1-72C53027B974

Conservation status: Near Threatened

Notes: Fig. 22 .

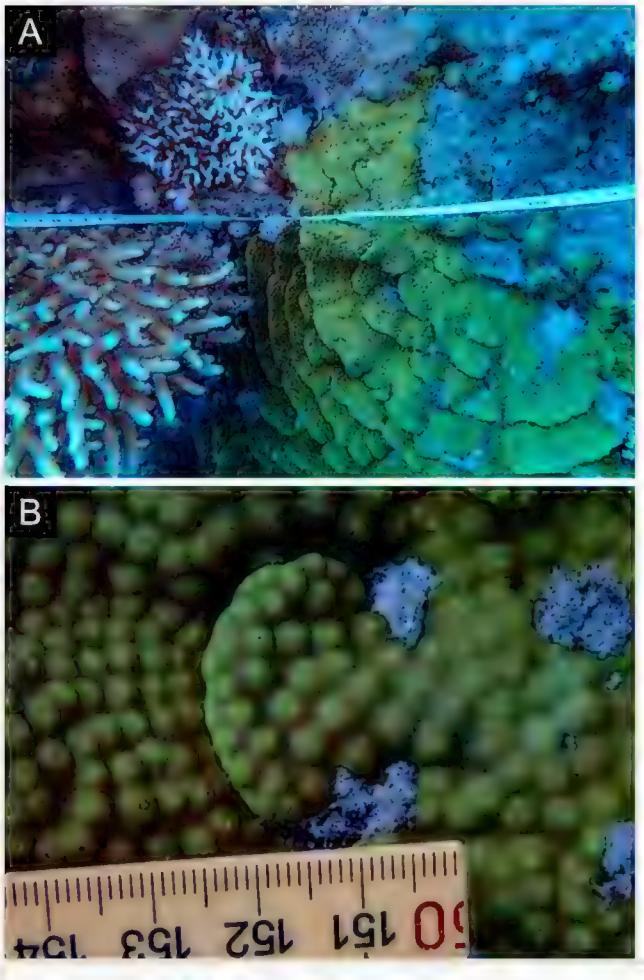

Figure 21. doi

The growth form and appearance of *Turbinaria mesenterina* in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Theres Koch.

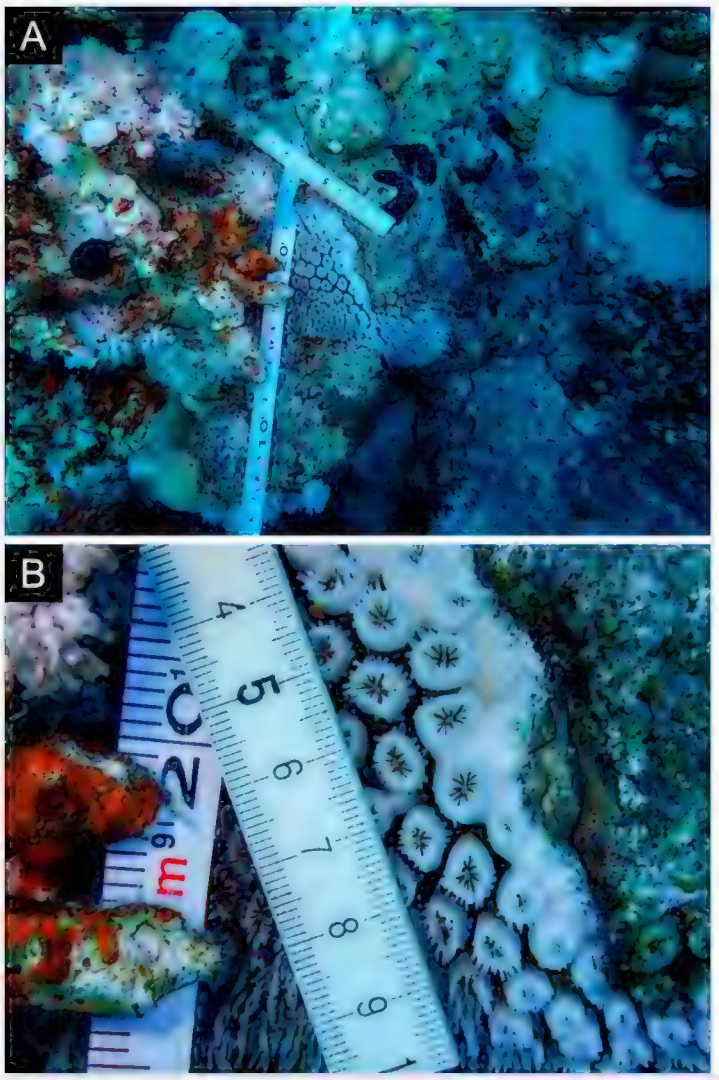

Figure 22. doi

The growth form and appearance of *Galaxea fascicularis* (bleached) in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Theres Koch.

Gyrosmilia interrupta (Ehrenberg, 1834)

Material

a. scientificName: *Gyrosmilia interrupta*; scientificNameID: urn:lsid:marinespecies.org:taxname:207496; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 2C514366-C588-5AED-AD89-7F2F880CF306

Conservation status: Least Concern

Notes: Fig. 23 .

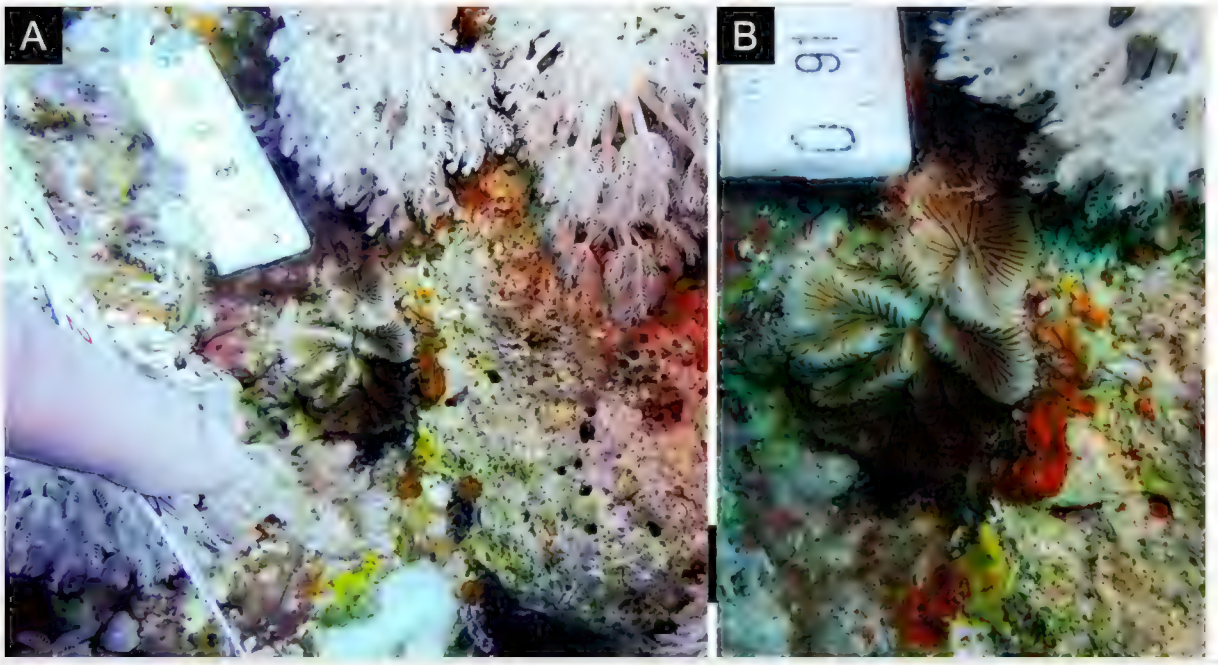

Figure 23. doi

The growth form and appearance of *Gyrosmilia interrupta* in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Theres Koch.

Family Fungiidae Dana, 1846

Ctenactis cf. *crassa* (Dana, 1846)

Materials

a. scientificName: *Ctenactis* cf. *crassa*; scientificNameID: urn:lsid:marinespecies.org:taxname:288875; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 4.3; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 24-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed and photographed on a current-exposed shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 836A8707-0412-5C0E-8924-858A9CDA304F

b. scientificName: *Ctenactis* cf. *crassa*; scientificNameID: urn:lsid:marinespecies.org:taxname:288875; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 3.7; maximumDepthInMeters: 4.75; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 25-10-2023; year: 2023; habitat: sheltered shallow reef slope; occurrenceRemarks: Observed and photographed on a sheltered shallow reef

slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 9329969E-6C14-5291-9634-C40246F55659

c. scientificName: *Ctenactis* cf. *crassa*; scientificNameID: urn:lsid:marinespecies.org:taxname:288875; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 7.2; maximumDepthInMeters: 9.5; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 23-10-2023; year: 2023; habitat: sheltered deeper reef slope; occurrenceRemarks: Observed and photographed on a sheltered deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: EF372AE4-B5FC-55B8-943A-475F1361B85A

Conservation status: Least Concern

Notes: Fig. 24; possible alternative: *Ctenactis echinata* (Pallas, 1766).

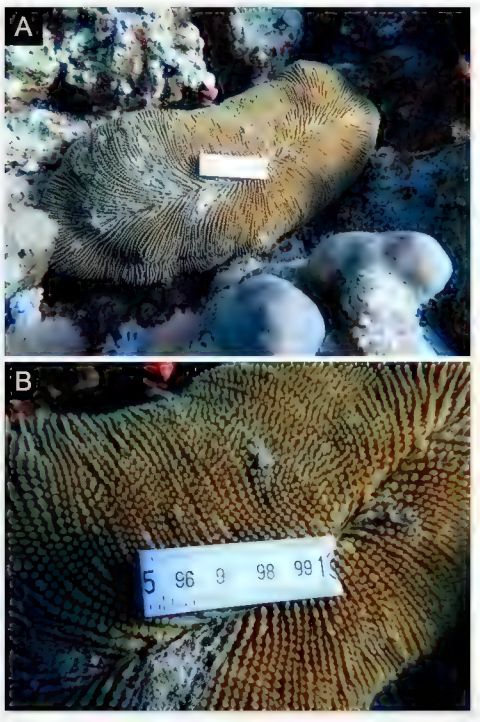

Figure 24. doi

The growth form and appearance of *Ctenactis* cf. *crassa* in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Joseph Wallace Daurella.

Family Leptastreidae Rowlett, 2020

Leptastrea bottae (Milne Edwards & Haime, 1849)

Material

a. scientificName: *Leptastrea bottae*; scientificNameID: urn:lsid:marinespecies.org:taxname:207476; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species;

continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 61EE2BBF-99F0-5005-9857-719FBE6AC2E1

Conservation status: Near Threatened

Notes: Fig. 25 .

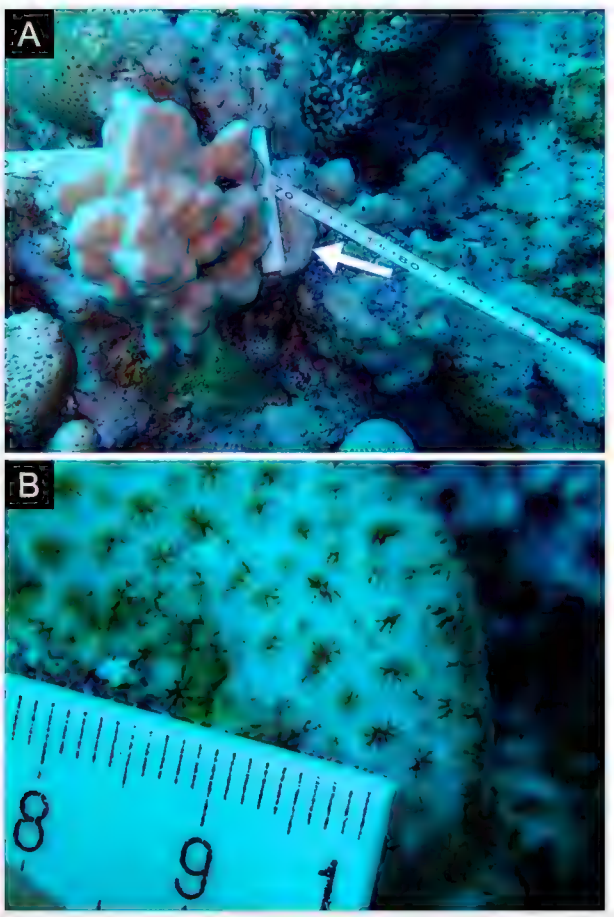

Figure 25. doi

The growth form and appearance of *Leptastrea bottae* (bleached) in the reef are shown in (**A**), with an arrow indicating the colony while (**B**) provides a close-up of the colony. Photo credits: Theres Koch.

Leptastrea inaequalis Klunzinger, 1879

Material

a. scientificName: *Leptastrea inaequalis*; scientificNameID: urn:lsid:marinespecies.org:taxname:207471; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located

on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 4.3; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed and photographed on a current-exposed shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: E1BF60EB-9840-510D-AE58-BC617F549BE1

Conservation status: Near Threatened

Notes: Fig. 26 .

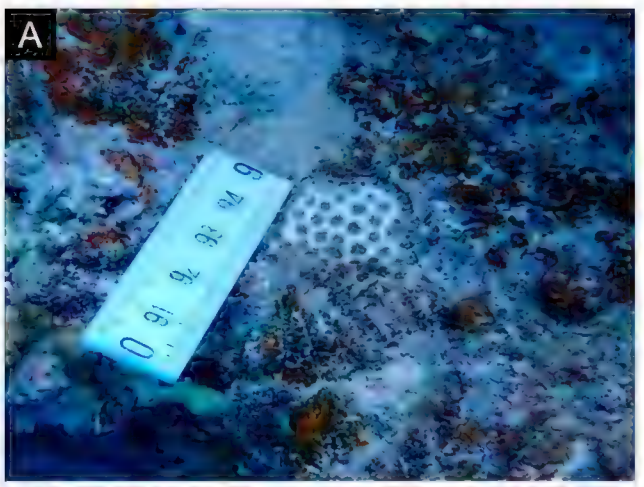

Figure 26. doi

The growth form and appearance of *Leptastrea inaequalis* (bleached) in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Lewis Alan Jones.

Leptastrea transversa Klunzinger, 1879

Materials

a. scientificName: *Leptastrea transversa*; scientificNameID: urn:lsid:marinespecies.org:taxname:207474; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 4.3; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′;

decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 24-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed and photographed on a current-exposed shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: C78474B0-BCBF-59C8-96B2-40DD9BCB7CC2

b. scientificName: *Leptastrea transversa*; scientificNameID: urn:lsid:marinespecies.org:taxname:207474; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 458DDE44-A71A-5682-96D9-7BBE54E5145C

c. scientificName: *Leptastrea transversa*; scientificNameID: urn:lsid:marinespecies.org:taxname:207474; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 3.7; maximumDepthInMeters: 4.75; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 23-10-2023; year: 2023; habitat: sheltered shallow reef slope; occurrenceRemarks: Observed and photographed on a sheltered shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 7B251355-699E-5CA1-9E0C-E714ED56AF26

d. scientificName: *Leptastrea transversa*; scientificNameID: urn:lsid:marinespecies.org:taxname:207474; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 7.2; maximumDepthInMeters: 9.5; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 23-10-2023; year: 2023; habitat: sheltered deeper reef slope; occurrenceRemarks: Observed and photographed on a sheltered deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 201307F3-5AD4-53A6-A1FB-12B4C679BDDE

Conservation status: Least Concern

Notes: Fig. 27 .

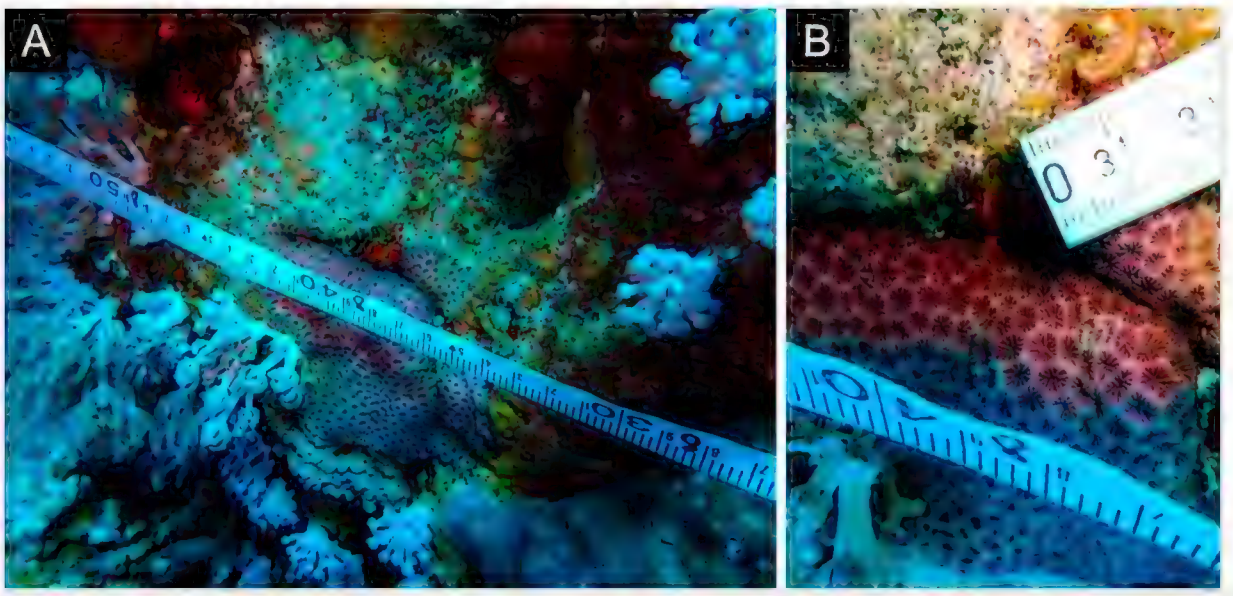

Figure 27. doi

The growth form and appearance of *Leptastrea transversa* in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Victor Sebastian Scharnhorst.

Family Lobophylliidae Dai & Horng, 2009

Acanthastrea hemprichii (Ehrenberg, 1834)

Material

a. scientificName: *Acanthastrea hemprichii*; scientificNameID: urn:lsid:marinespecies.org:taxname:288878; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: F2A16282-729D-505A-AF25-ECEC636A0730

Conservation status: Vulnerable

Notes: Fig. 28 .

Echinophyllia spp. Klunzinger, 1879

Material

a. scientificName: *Echinophyllia* spp.; scientificNameID: urn:lsid:marinespecies.org:taxname:204799; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Genus; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr

al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 4.3; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed and photographed on a current-exposed shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: A83A305B-BCE2-5123-9366-EA9B72329302

Conservation status: Unknown

Notes: Fig. 29; one distinguished morphotype.

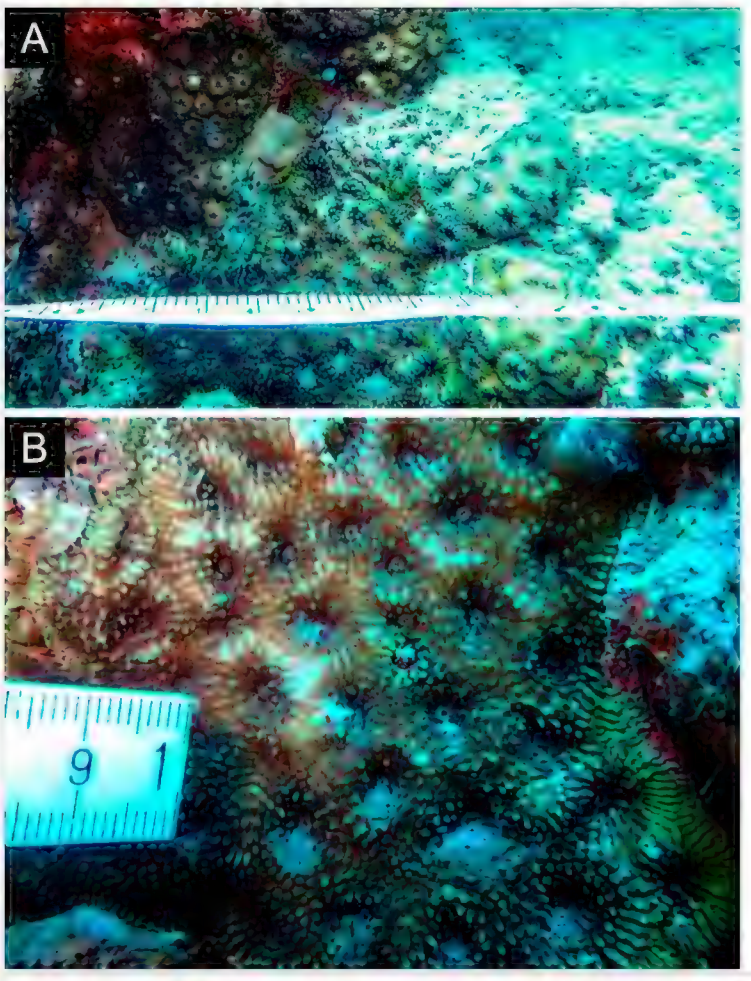

Figure 28. doi

The growth form and appearance of *Acanthastrea hemprichii* in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Victor Sebastian Scharnhorst.

Echinophyllia cf. spp. Klunzinger, 1879

Materials

a. scientificName: *Echinophyllia* cf. sp.; scientificNameID: urn:lsid:marinespecies.org:taxname:204799; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Genus; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude:

N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 24-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 5C991BBC-2105-5B59-A41E-D85DA472175F

b. scientificName: *Echinophyllia* cf. sp.; scientificNameID: urn:lsid:marinespecies.org:taxname:204799; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Genus; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 7.2; maximumDepthInMeters: 9.5; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 25-10-2023; year: 2023; habitat: sheltered deeper reef slope; occurrenceRemarks: Observed and photographed on a sheltered deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: ACE6C1D2-11F0-571E-ADE6-B0FC302C0559

Conservation status: Unknown

Notes: Fig. 30; possible alternative: *Paraechinophyllia* sp. Arrigoni, Benzoni & Stolarski, 2019.

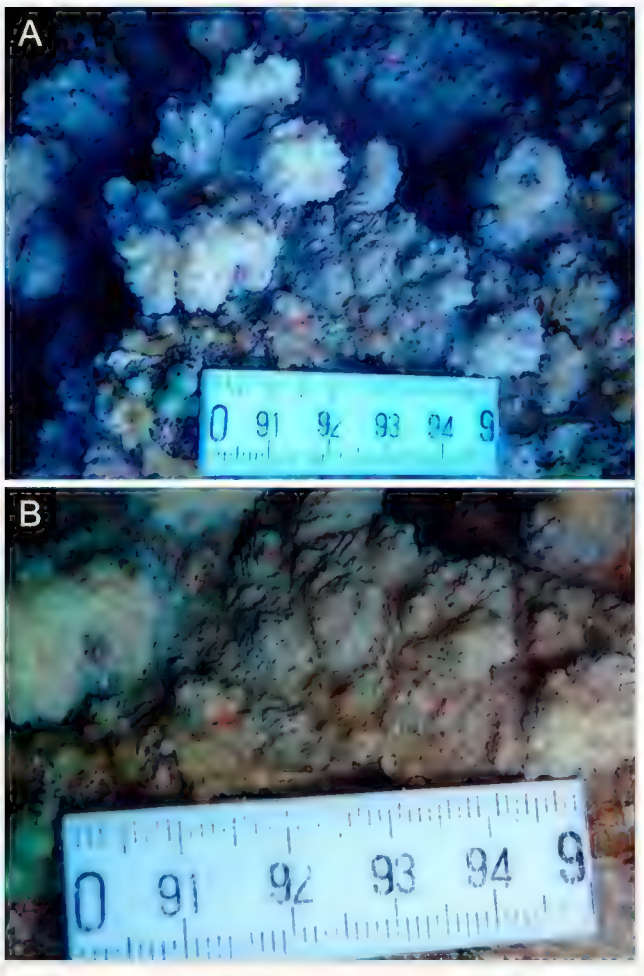

Figure 29. doi

Amongst the *Echinophyllia* colonies identified only to genus level, one morphotype (**A**—**B**) was distinguished. Photo credits: Lewis Alan Jones.

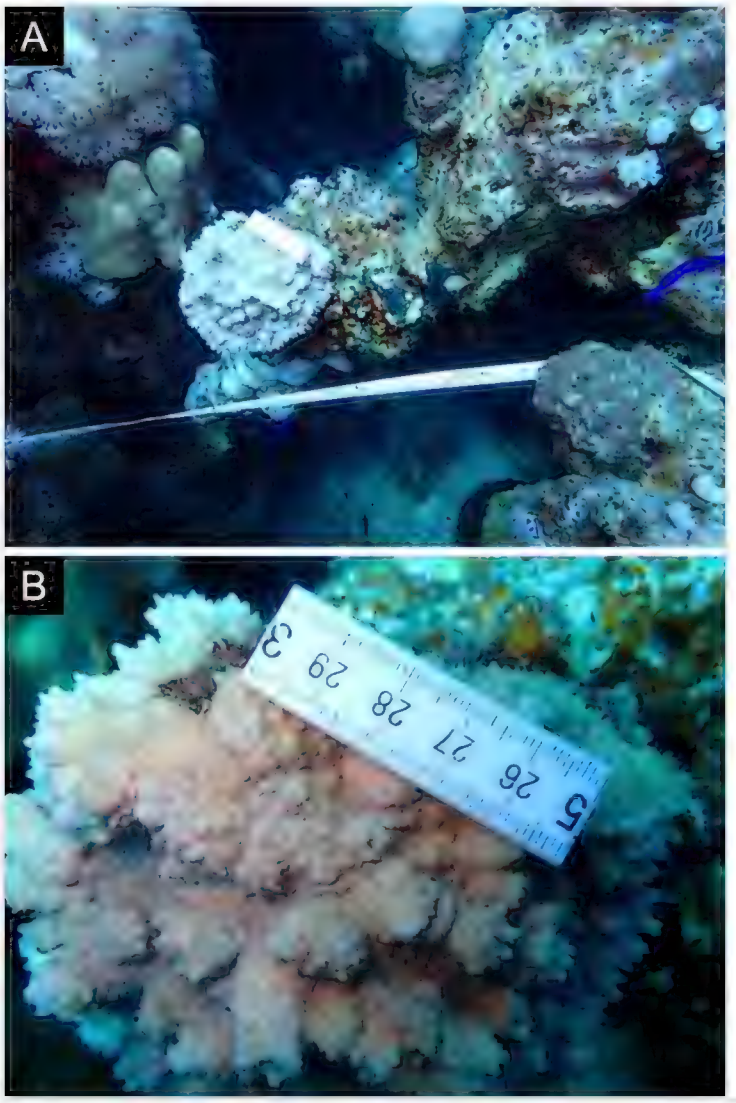

Figure 30. doi

Amongst the *Echinophyllia* cf. colonies identified only to genus level, one morphotype (**A**—**B**) was distinguished. Photo credits: Victor Sebastian Scharnhorst.

Oxypora sp. Saville Kent, 1871

Material

a. scientificName: *Oxypora* sp.; scientificNameID: urn:lsid:marinespecies.org:taxname:205536; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Genus; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: C7F770A8-F6EE-5FE7-B63E-3C691A15B262

Conservation status: Unknown

Notes: Fig. 31; one distinguished morphotype.

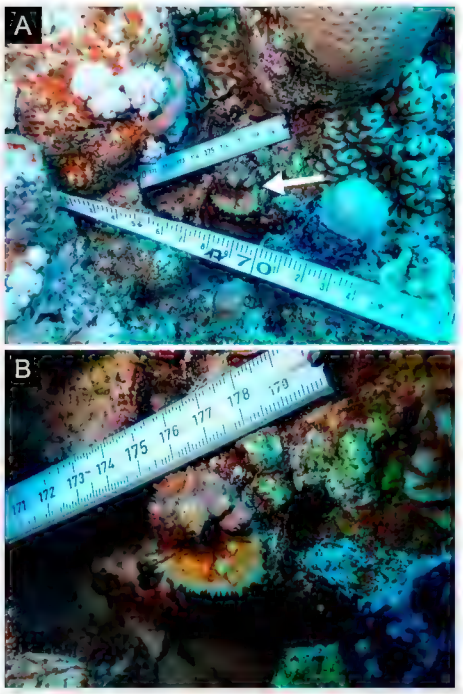

Figure 31. doi

The growth form and appearance of the only *Oxypora* colony found is represented by one morphotype (**A**—**B**). Photo credits: Victor Sebastian Scharnhorst.

Family Merulinidae Milne Edwards & Haime, 1857

Cyphastrea chalcidicum (Forskål, 1775)

Materials

a. scientificName: *Cyphastrea chalcidicum*; scientificNameID: urn:lsid:marinespecies.org:taxname:207415; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 4.3; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed and photographed on a current-exposed shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 07904C90-FA9D-5189-BC2B-865FCCAE32BF

b. scientificName: *Cyphastrea chalcidicum*; scientificNameID: urn:lsid:marinespecies.org:taxname:207415; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed

deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: A5EEC132-B1E6-510D-A745-C7C5D5EE4C27

c. scientificName: *Cyphastrea chalcidicum*; scientificNameID: urn:lsid:marinespecies.org:taxname:207415; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 1; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 20-10-2023; year: 2023; habitat: sheltered reef edge; occurrenceRemarks: Observed and photographed on a sheltered reef edge; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: CCCA5F78-A732-5F82-942F-2B63EBBB33CC

d. scientificName: *Cyphastrea chalcidicum*; scientificNameID: urn:lsid:marinespecies.org:taxname:207415; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 3.7; maximumDepthInMeters: 4.75; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 25-10-2023; year: 2023; habitat: sheltered shallow reef slope; occurrenceRemarks: Observed and photographed on a sheltered shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: C552D0C9-0C74-5132-8723-9781807FA103

Conservation status: Least Concern

Notes: Fig. 32 .

Cyphastrea kausti Bouwmeester & Benzoni, 2015

Materials

a. scientificName: *Cyphastrea kausti*; scientificNameID: urn:lsid:marinespecies.org:taxname:843628; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 4.3; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 24-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed and photographed on a current-exposed shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: C0E5006C-1C14-5ED3-95C1-E6C348AAD93F

b. scientificName: *Cyphastrea kausti*; scientificNameID: urn:lsid:marinespecies.org:taxname:843628; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species;

continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 7BCB45C0-BDF8-50B5-B7C5-296961953F6E

c. scientificName: *Cyphastrea kausti*; scientificNameID: urn:lsid:marinespecies.org:taxname:843628; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 3.7; maximumDepthInMeters: 4.75; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 25-10-2023; year: 2023; habitat: sheltered shallow reef slope; occurrenceRemarks: Observed and photographed on a sheltered shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 52E00F26-7C3A-58E3-B217-5D450C8F6462

Conservation status: Unknown

Notes: Fig. 33 .

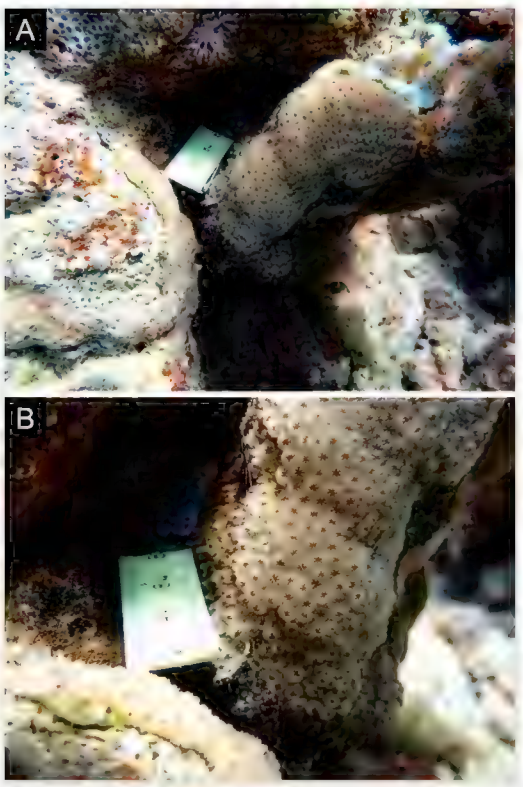

Figure 32. doi

The growth form and appearance of *Cyphastrea chalcidicum* in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Joseph Wallace Daurella.

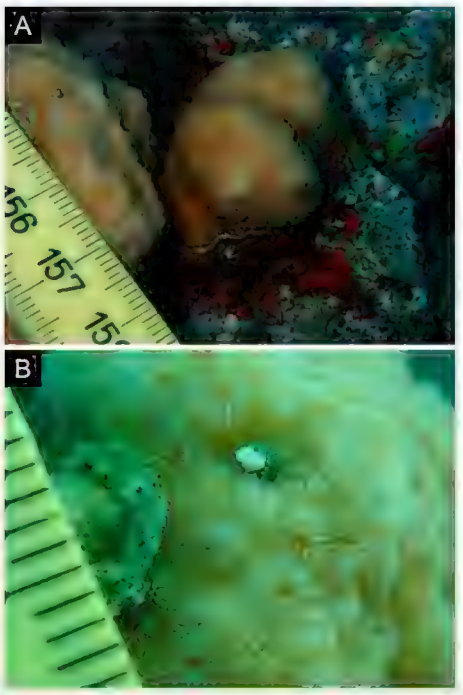

Figure 33. doi

The growth form and appearance of *Cyphastrea kausti* in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Theres Koch.

Cyphastrea magna Benzoni & Arrigoni, 2017

Materials

a. scientificName: *Cyphastrea magna*; scientificNameID: urn:lsid:marinespecies.org:taxname:990872; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 1; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed reef edge; occurrenceRemarks: Observed and photographed on a current-exposed reef edge; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: F017D0CB-9629-5D62-90C5-915E7BC52883

b. scientificName: *Cyphastrea magna*; scientificNameID: urn:lsid:marinespecies.org:taxname:990872; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 3.7; maximumDepthInMeters: 4.75; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 25-10-2023; year: 2023; habitat: sheltered shallow reef slope; occurrenceRemarks: Observed and photographed on a sheltered shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: B72BD2D0-A730-5D77-885C-CBF54D3B1627

Conservation status: Unknown

Notes: Fig. 34 .

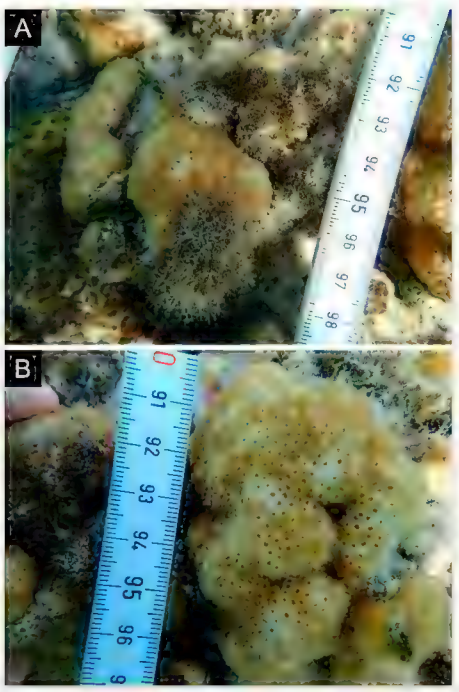

Figure 34. doi

The growth form and appearance of *Cyphastrea magna* in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Antonia Auer, Theda Schöchtner, Gözde Özer.

Cyphastrea microphthalma (Lamarck, 1816)

Materials

a. scientificName: *Cyphastrea microphthalma*; scientificNameID: urn:lsid:marinespecies.org:taxname:207416; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 4.3; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 24-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed and photographed on a current-exposed shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: C8244BB3-6017-52A8-A247-6F70DECC9AC0

b. scientificName: *Cyphastrea microphthalma*; scientificNameID: urn:lsid:marinespecies.org:taxname:207416; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line

Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: E787782E-A3DF-5446-A940-284B2878DADB

c. scientificName: *Cyphastrea microphthalma*; scientificNameID: urn:lsid:marinespecies.org:taxname:207416; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 7.2; maximumDepthInMeters: 9.5; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 23-10-2023; year: 2023; habitat: sheltered deeper reef slope; occurrenceRemarks: Observed and photographed on a sheltered deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 8BE39145-04A0-50F4-8F50-219C9579BF2E

Conservation status: Least Concern

Notes: Fig. 35 .

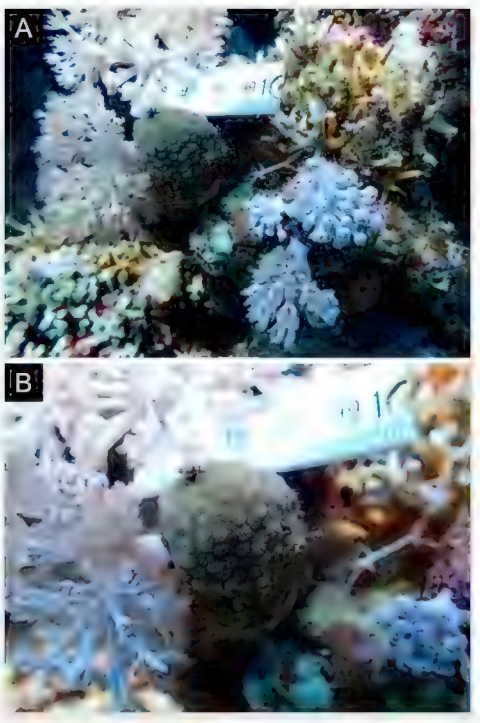

Figure 35. doi

The growth form and appearance of *Cyphastrea microphthalma* in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Joseph Wallace Daurella.

Cyphastrea spp. Milne Edwards & Haime, 1849

Materials

a. scientificName: *Cyphastrea* sp.; scientificNameID: urn:lsid:marinespecies.org:taxname:206488; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Genus;

continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 4.3; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 24-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed and photographed on a current-exposed shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 36D77519-5E4A-5B71-93E0-77DD3EABC1FB

b. scientificName: *Cyphastrea* sp.; scientificNameID: urn:lsid:marinespecies.org:taxname: 206488; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Genus; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 7175C2FA-434C-5EE0-B36B-FAEFBDA7769D

Conservation status: Unknown

Notes: Fig. 36; one distinguished morphotype.

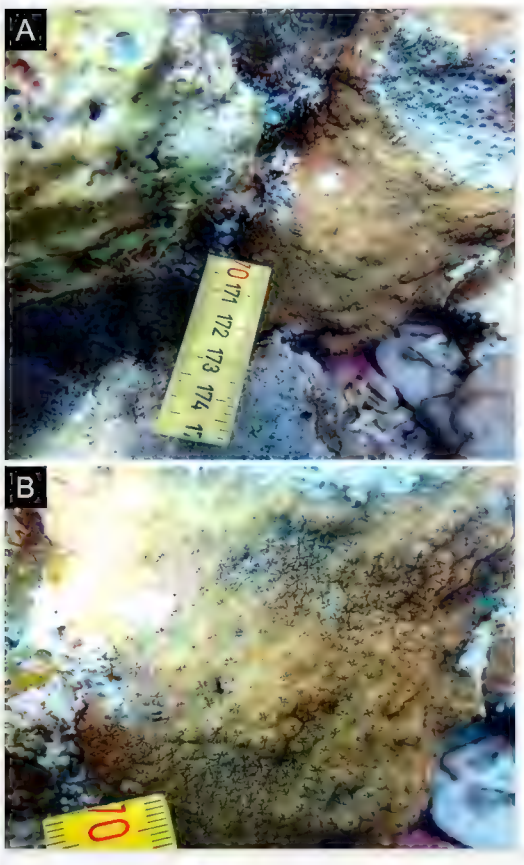

Figure 36. doi

Amongst the *Cyphastrea* colonies identified only to genus level, one morphotype (**A**—**B**) was distinguished. Photo credits: Joseph Wallace Daurella.

Dipsastraea danai (Milne Edwards & Haime, 1857)

Material

a. scientificName: *Dipsastraea danai*; scientificNameID: urn:lsid:marinespecies.org:taxname:758238; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 4.3; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 24-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed and photographed on a current-exposed shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 11FDDE2E-0973-5BE0-B64B-B030A5E29AFF

Conservation status: Least Concern

Notes: Fig. 37 .

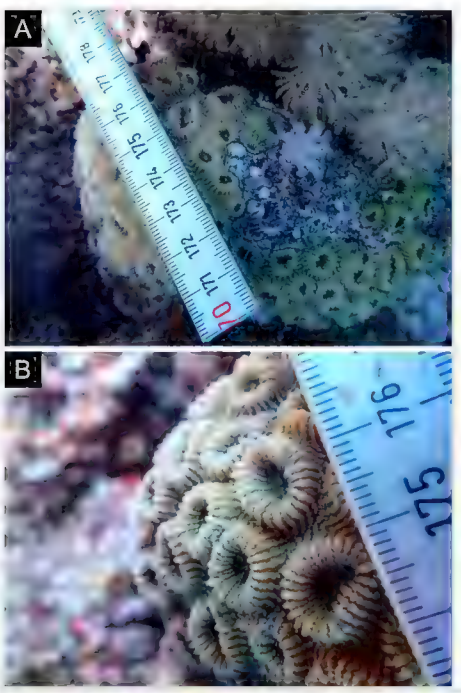

Figure 37. doi

The growth form and appearance of *Dipsastraea danai* in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Joseph Wallace Daurella.

Dipsastraea faviaformis (Veron, 2000)

Material

a. scientificName: *Dipsastraea faviaformis*; scientificNameID: urn:lsid:marinespecies.org:taxname:888171; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir;

minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 24-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 58917073-E857-5FC9-AEA0-D42C0AFBF37F

Conservation status: Vulnerable

Notes: Fig. 38 .

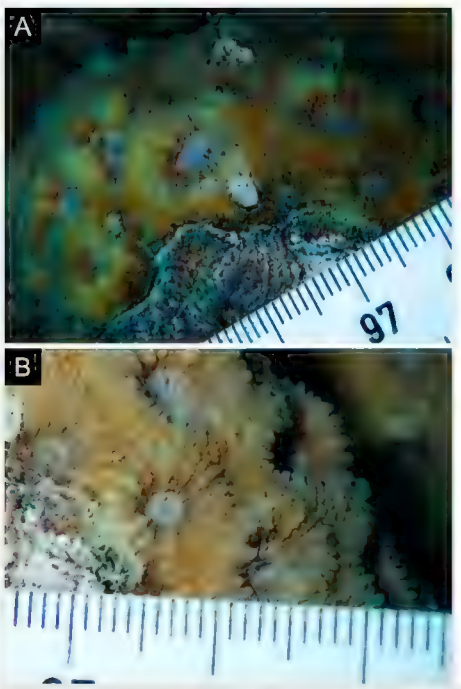

Figure 38. doi

The growth form and appearance of *Dipsastraea faviaformis* in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Theres Koch.

Dipsastraea laxa (Klunzinger, 1879)

Material

a. scientificName: *Dipsastraea laxa*; scientificNameID: urn:lsid:marinespecies.org:taxname:758235; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 2963DAD9-1AD2-518F-A8C1-6F11F0FB13A3

Conservation status: Near Threatened

Notes: Fig. 39 .

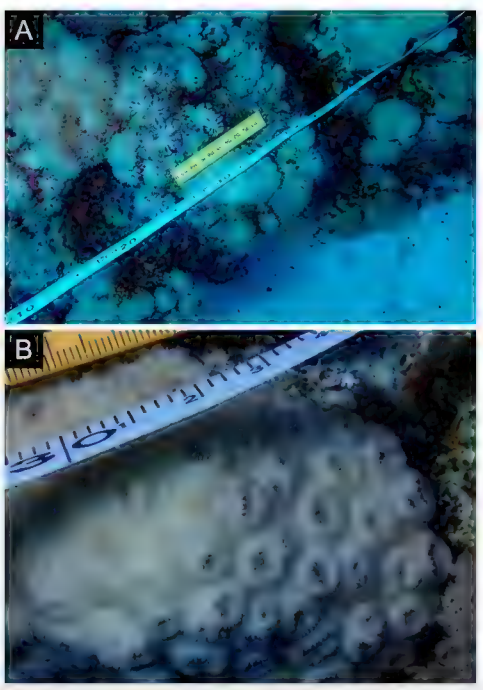

Figure 39. doi

The growth form and appearance of *Dipsastraea laxa* (bleached) in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Theres Koch.

Dipsastraea matthaii (Vaughan, 1918)

Materials

a. scientificName: *Dipsastraea matthaii*; scientificNameID: urn:lsid:marinespecies.org:taxname:758240; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 1; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed reef edge; occurrenceRemarks: Observed and photographed on a current-exposed reef edge; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 3E7198E9-9B1E-508F-9FF1-8E1247FFF659

b. scientificName: *Dipsastraea matthaii*; scientificNameID: urn:lsid:marinespecies.org:taxname:758240; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 24-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed

deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: A144BC07-D7F1-56BD-A78B-19FE4D8ECBDC

Conservation status: Near Threatened

Notes: Fig. 40 .

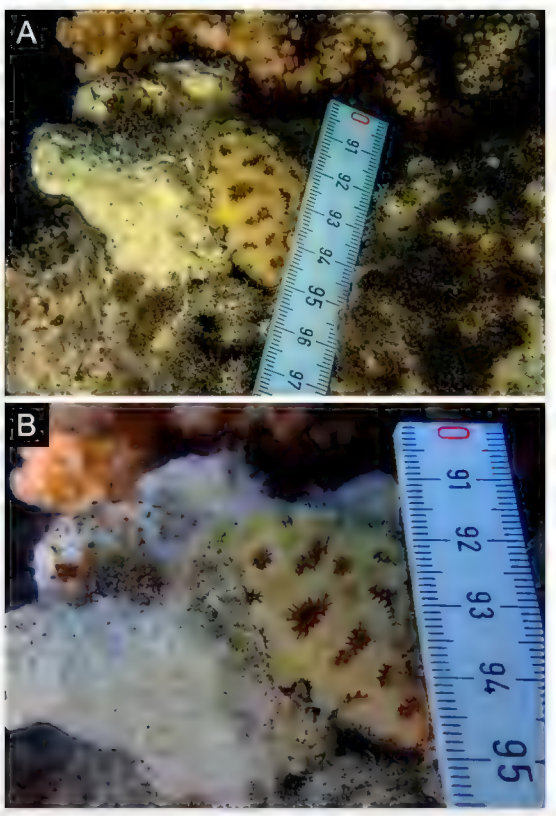

Figure 40. doi

The growth form and appearance of *Dipsastraea matthaii* in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Antonia Auer, Theda Schöchtner, Gözde Özer.

Dipsastraea pallida (Dana, 1846)

Materials

a. scientificName: *Dipsastraea pallida*; scientificNameID: urn:lsid:marinespecies.org:taxname:758233; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 1; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 23-10-2023; year: 2023; habitat: current-exposed reef edge; occurrenceRemarks: Observed and photographed on a current-exposed reef edge; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 80FB4C4F-85E1-50E4-B547-F6CB34999898

b. scientificName: *Dipsastraea pallida*; scientificNameID: urn:lsid:marinespecies.org:taxname:758233; kingdom: Animalia; phylum: Cnidaria; class:

Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 4.3; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 24-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed and photographed on a current-exposed shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 100477B5-2568-534F-B2B2-C61F21AD7F84

c. scientificName: *Dipsastraea pallida*; scientificNameID: urn:lsid:marinespecies.org:taxname:758233; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 2C45F3FF-FE71-5650-8D42-3FDA6A05B513

Conservation status: Least Concern

Notes: Fig. 41 .

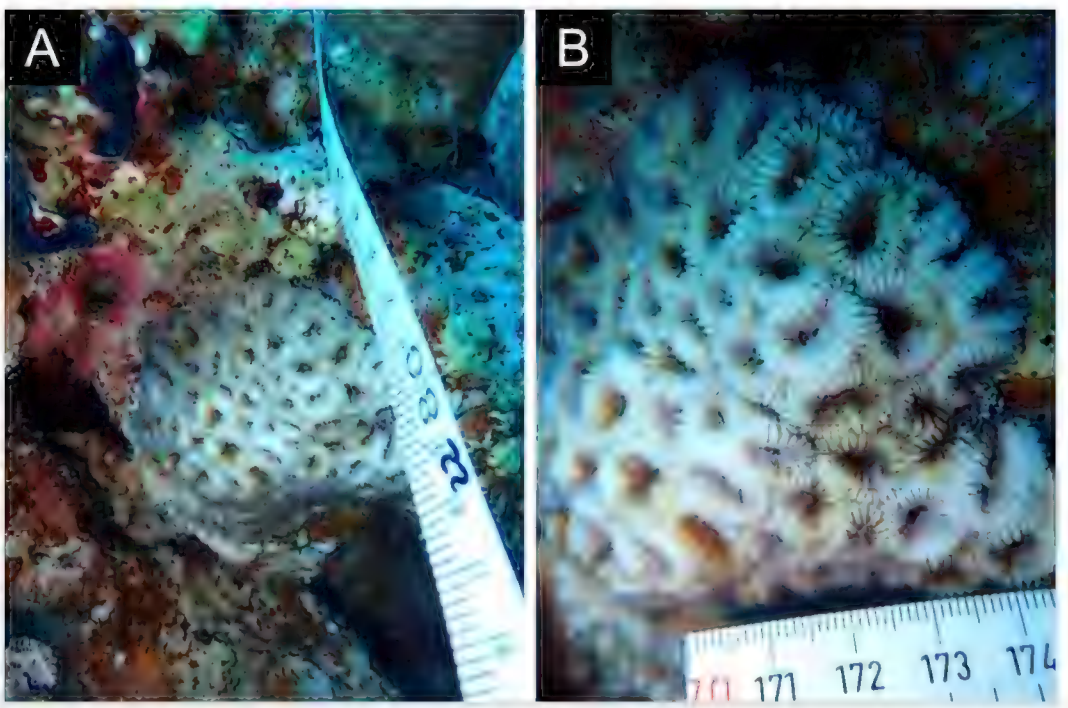

Figure 41. doi

The growth form and appearance of *Dipsastraea pallida* (bleached) in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Victor Sebastian Scharnhorst.

Dipsastraea spp. Blainville, 1830

Material

a. scientificName: *Dipsastraea* spp.; scientificNameID: urn:lsid:marinespecies.org:taxname:718746; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Genus; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 4.3; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed on a current-exposed shallow reef slope; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: DA74606A-C985-5161-A49C-37CADFF8321D

Conservation status: Unknown

Dipsastraea speciosa (Dana, 1846)

Materials

a. scientificName: *Dipsastraea speciosa*; scientificNameID: urn:lsid:marinespecies.org:taxname:758219; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 4.3; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed and photographed on a current-exposed shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: FC8191C9-0DB2-5DE8-9E8C-05CF5EBEC853

b. scientificName: *Dipsastraea speciosa*; scientificNameID: urn:lsid:marinespecies.org:taxname:758219; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 69850653-3990-5979-950B-565031C4958B

Conservation status: Least Concern

Notes: Fig. 42 .

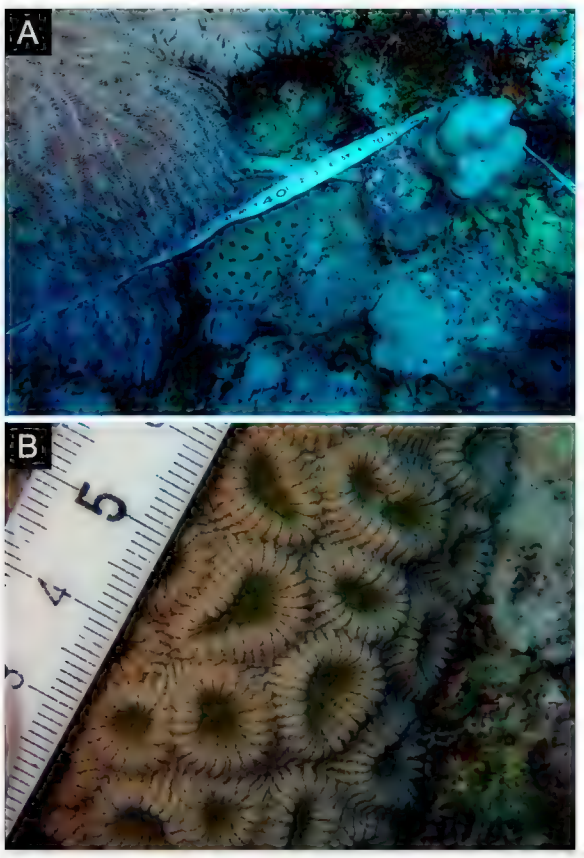

Figure 42. doi

The growth form and appearance of *Dipsastraea speciosa* in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Theres Koch.

Echinopora forskaliana (Milne Edwards & Haime, 1849)

Materials

a. scientificName: *Echinopora forskaliana*; scientificNameID: urn:lsid:marinespecies.org:taxname:288341; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 4.3; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 24-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed and photographed on a current-exposed shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: F9047082-034A-5FDC-BC9A-F99419386507

b. scientificName: *Echinopora forskaliana*; scientificNameID: urn:lsid:marinespecies.org:taxname:288341; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015;

decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 2EB0AA27-B4EE-53D8-870A-53B962438719

Conservation status: Near Threatened

Notes: Fig. 43 .

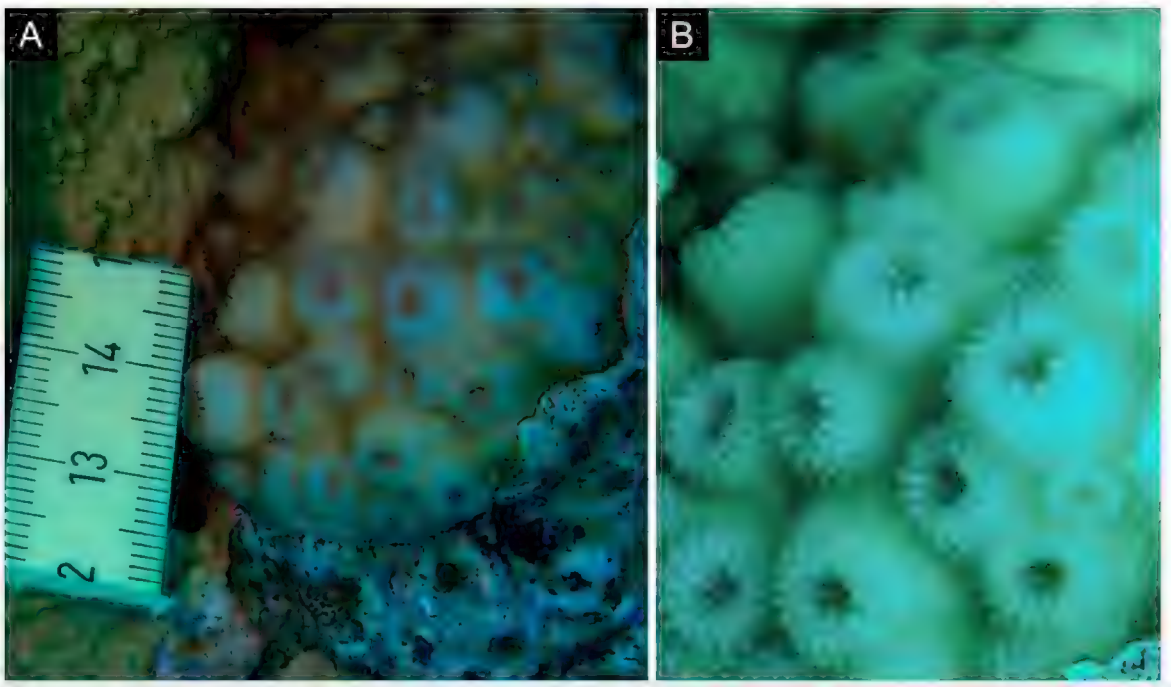

Figure 43. doi

The growth form and appearance of *Echinopora forskaliana* in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Theres Koch.

Echinopora fruticulosa (Ehrenberg, 1834)

Materials

a. scientificName: *Echinopora fruticulosa*; scientificNameID: urn:lsid:marinespecies.org:taxname:207422; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 24-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 7DE2740C-DB21-56E8-B215-3434677945C5

b. scientificName: *Echinopora fruticulosa*; scientificNameID: urn:lsid:marinespecies.org:taxname:207422; kingdom: Animalia; phylum: Cnidaria; class:

Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 3.7; maximumDepthInMeters: 4.75; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 25-10-2023; year: 2023; habitat: sheltered shallow reef slope; occurrenceRemarks: Observed and photographed on a sheltered shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 287157AF-F388-5CBA-9945-EBF729B6379A

Conservation status: Near Threatened

Notes: Fig. 44 .

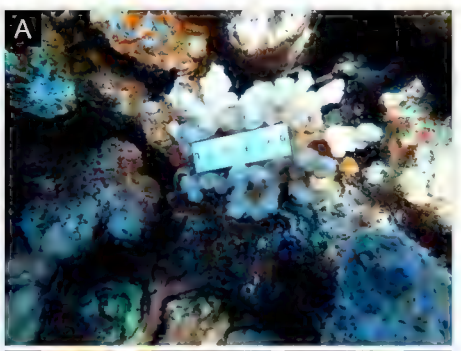

Figure 44. doi

The growth form and appearance of *Echinopora fruticulosa* (bleached) in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Joseph Wallace Daurella.

Favites abdita (Ellis & Solander, 1786)

Material

a. scientificName: *Favites abdita*; scientificNameID: urn:lsid:marinespecies.org:taxname:207449; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 1; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 24-10-2023; year: 2023; habitat: current-exposed reef edge; occurrenceRemarks: Observed and photographed on a current-exposed reef edge; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode:

Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: D4B73875-DF85-5757-BE5A-EC28F3C95518

Conservation status: Near Threatened

Notes: Fig. 45 .

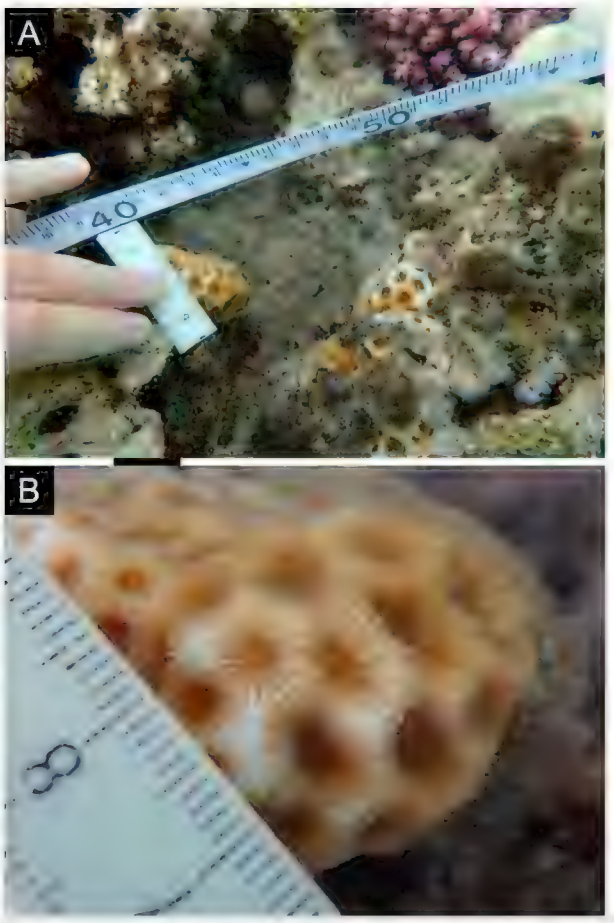

Figure 45. doi

The growth form and appearance of *Favites abdita* in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Antonia Auer, Theda Schöchtner, Gözde Özer.

Favites cf. *complanata* (Ehrenberg, 1834)

Material

a. scientificName: *Favites* cf. *complanata*; scientificNameID: urn:lsid:marinespecies.org:taxname:207455; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 04DB58DE-34EA-5570-8691-059057D86722

Conservation status: Near Threatened

Notes: Fig. 46 .

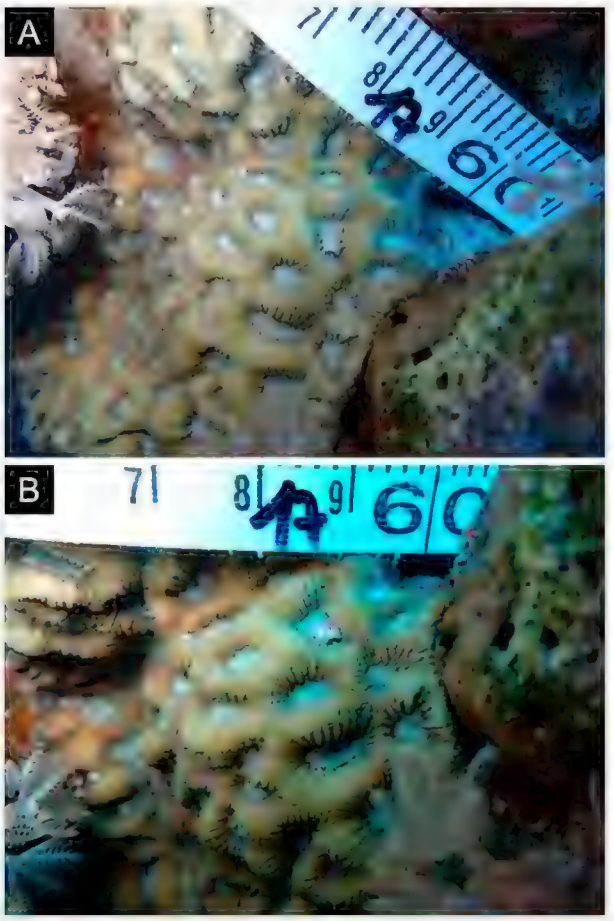

Figure 46. doi

The growth form and appearance of *Favites* cf. *complanata* in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Victor Sebastian Scharnhorst.

Favites rotundata Veron, Pichon & Wijsman-Best, 1977

Material

a. scientificName: *Favites rotundata*; scientificNameID: urn:lsid:marinespecies.org:taxname:207445; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 044870A2-EEE6-59D6-8AB5-DB3A747D07D7

Conservation status: Near Threatened

Notes: Fig. 47 .

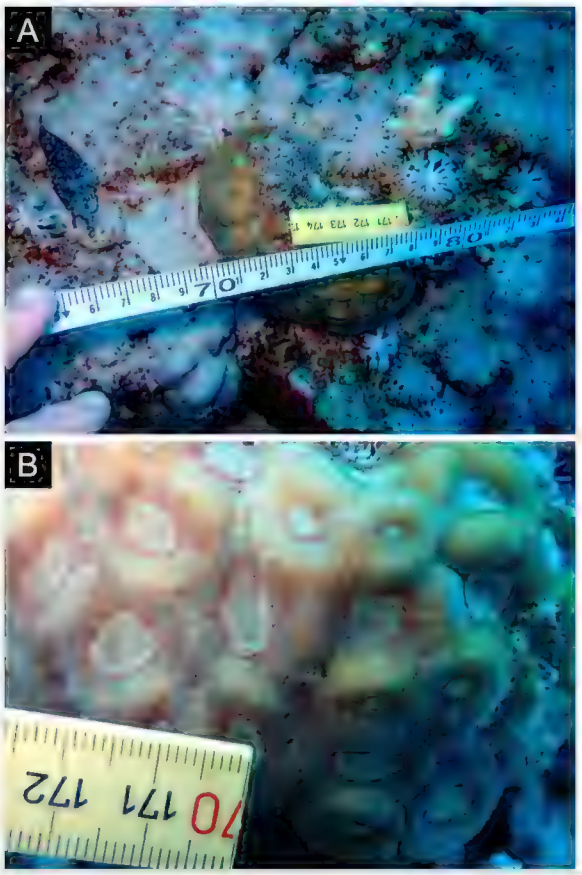

Figure 47. doi

The growth form and appearance of *Favites rotundata* in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Victor Sebastian Scharnhorst.

Favites vasta (Klunzinger, 1879)

Material

a. scientificName: *Favites vasta*; scientificNameID: urn:lsid:marinespecies.org:taxname:430663; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 4.3; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed and photographed on a current-exposed shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 00C9DE5F-6F84-55D3-A716-63CFAB0D8359

Conservation status: Near Threatened

Notes: Fig. 48 .

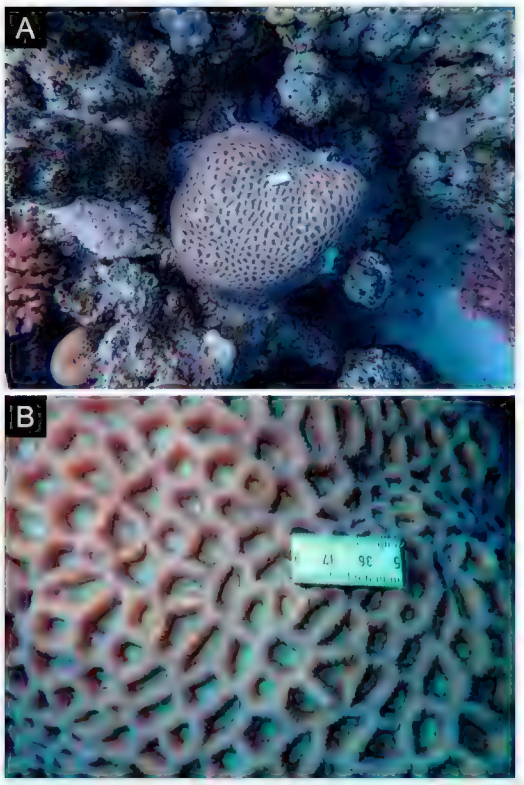

Figure 48. doi

The growth form and appearance of *Favites vasta* in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Lewis Alan Jones.

Goniastrea edwardsi Chevalier, 1971

Materials

a. scientificName: *Goniastrea edwardsi*; scientificNameID: urn:lsid:marinespecies.org:taxname:207466; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 1; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed reef edge; occurrenceRemarks: Observed and photographed on a current-exposed reef edge; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 72F1393E-E106-58BC-99F4-4DC70F46F70F

b. scientificName: *Goniastrea edwardsi*; scientificNameID: urn:lsid:marinespecies.org:taxname:207466; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 4.3; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed and photographed on a current-exposed shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023;

basisOfRecord: HumanObservation; occurrenceID: D329FCAF-DCC3-5148-BD7E-15EDAFEED75D

c. scientificName: *Goniastrea edwardsi*; scientificNameID: urn:lsid:marinespecies.org:taxname:207466; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 2BA7F3AD-9A89-58E0-B6C4-65E96BE7DE3D

d. scientificName: *Goniastrea edwardsi*; scientificNameID: urn:lsid:marinespecies.org:taxname:207466; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 1; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 20-10-2023; year: 2023; habitat: sheltered reef edge; occurrenceRemarks: Observed and photographed on a sheltered reef edge; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 67AC9D87-BEC6-56B0-898E-39D474E2C538

e. scientificName: *Goniastrea edwardsi*; scientificNameID: urn:lsid:marinespecies.org:taxname:207466; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 3.7; maximumDepthInMeters: 4.75; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 25-10-2023; year: 2023; habitat: sheltered shallow reef slope; occurrenceRemarks: Observed and photographed on a sheltered shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: DA4EA27B-5D3F-5AB9-BA35-A6DD039D9527

f. scientificName: *Goniastrea edwardsi*; scientificNameID: urn:lsid:marinespecies.org:taxname:207466; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 7.2; maximumDepthInMeters: 9.5; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 23-10-2023; year: 2023; habitat: sheltered deeper reef slope; occurrenceRemarks: Observed and photographed on a sheltered deeper reef

slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: FE40B90E-A9E7-563B-9CEB-8505B6719297

Conservation status: Least Concern

Notes: Fig. 49 .

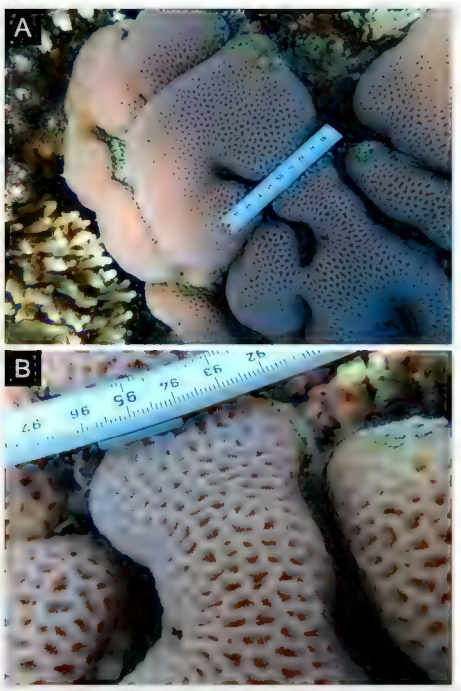

Figure 49. doi

The growth form and appearance of *Goniastrea edwardsi* in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Antonia Auer, Theda Schöchtner, Gözde Özer.

Goniastrea pectinata (Ehrenberg, 1834)

Materials

a. scientificName: *Goniastrea pectinata*; scientificNameID: urn:lsid:marinespecies.org:taxname:207464; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 4.3; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 24-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed and photographed on a current-exposed shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: AC8951A8-66DA-508B-B487-8EB767413B9F

b. scientificName: *Goniastrea pectinata*; scientificNameID: urn:lsid:marinespecies.org:taxname:207464; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located

on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: A1C3D673-B34A-583B-B502-B35075E8779B

c. scientificName: *Goniastrea pectinata*; scientificNameID: urn:lsid:marinespecies.org:taxname:207464; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 7.2; maximumDepthInMeters: 9.5; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 23-10-2023; year: 2023; habitat: sheltered deeper reef slope; occurrenceRemarks: Observed and photographed on a sheltered deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: B0F61796-8D9A-5D1F-80D7-90A2C64F1123

Conservation status: Least Concern

Notes: Fig. 50 .

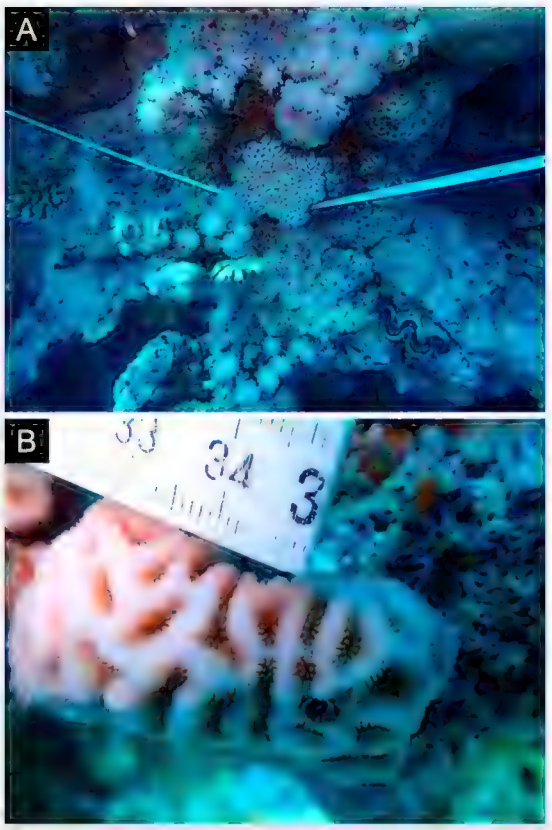

Figure 50. doi

The growth form and appearance of *Goniastrea pectinata* (bleached) in the reef are shown in (**A**), while (**B**) provides a close-up of another colony. Photo credits: (**A**) Theres Koch; (**B**) Victor Sebastian Scharnhorst.

Goniastrea retiformis (Lamarck, 1816)

Material

a. scientificName: *Goniastrea retiformis*; scientificNameID: urn:lsid:marinespecies.org:taxname:207461; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 4.3; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed and photographed on a current-exposed shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 7CE37B61-180F-5E13-98EE-170101124DE1

Conservation status: Least Concern

Notes: Fig. 51 .

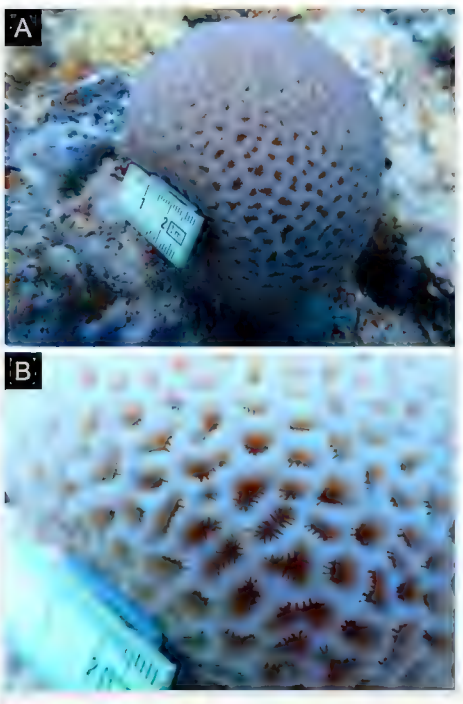

Figure 51. doi

The growth form and appearance of *Goniastrea retiformis* (bleached) in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Lewis Alan Jones.

Goniastrea sp. Milne Edwards & Haime, 1848

Material

a. scientificName: *Goniastrea* sp.; scientificNameID: urn:lsid:marinespecies.org:taxname:205082; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Genus; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt

(Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 4.3; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 24-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed on a current-exposed shallow reef slope; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 259E8A80-3680-5613-8D94-7EFC4339BDDB

Conservation status: Unknown

Goniastrea stelligera (Dana, 1846)

Material

a. scientificName: *Goniastrea stelligera*; scientificNameID: urn:lsid:marinespecies.org:taxname:763067; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 1; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 24-10-2023; year: 2023; habitat: current-exposed reef edge; occurrenceRemarks: Observed and photographed on a current-exposed reef edge; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 4E5E0805-EFB1-57E1-AF4D-97C1E4801EB3

Conservation status: Near Threatened

Notes: Fig. 52 .

Merulina scheeri Head, 1983

Material

a. scientificName: *Merulina scheeri*; scientificNameID: urn:lsid:marinespecies.org:taxname:207408; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 9AAA960D-0583-5AAA-9771-90F5F8BBAD1F

Conservation status: Least Concern

Notes: Fig. 53 .

Figure 52. doi

The growth form and appearance of *Goniastrea stelligera* in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Antonia Auer, Theda Schöchtner, Gözde Özer.

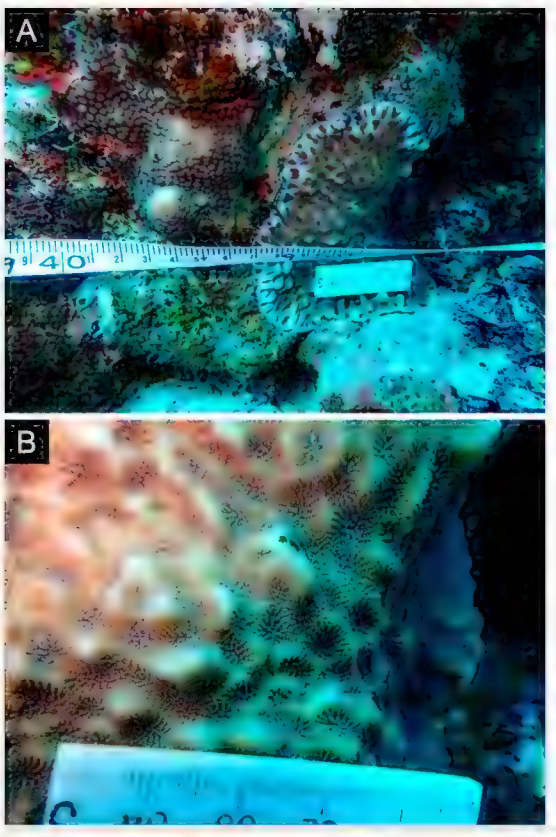

Figure 53. doi

The growth form and appearance of *Merulina scheeri* in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Victor Sebastian Scharnhorst.

Paramontastraea peresi (Faure & Pichon, 1978)

Material

a. scientificName: *Paramontastraea peresi*; scientificNameID: urn:lsid:marinespecies.org:taxname:762398; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 6ECF69A3-FCC8-524C-8849-A2CC0DE6EE28

Conservation status: Near Threatened

Notes: Fig. 54 .

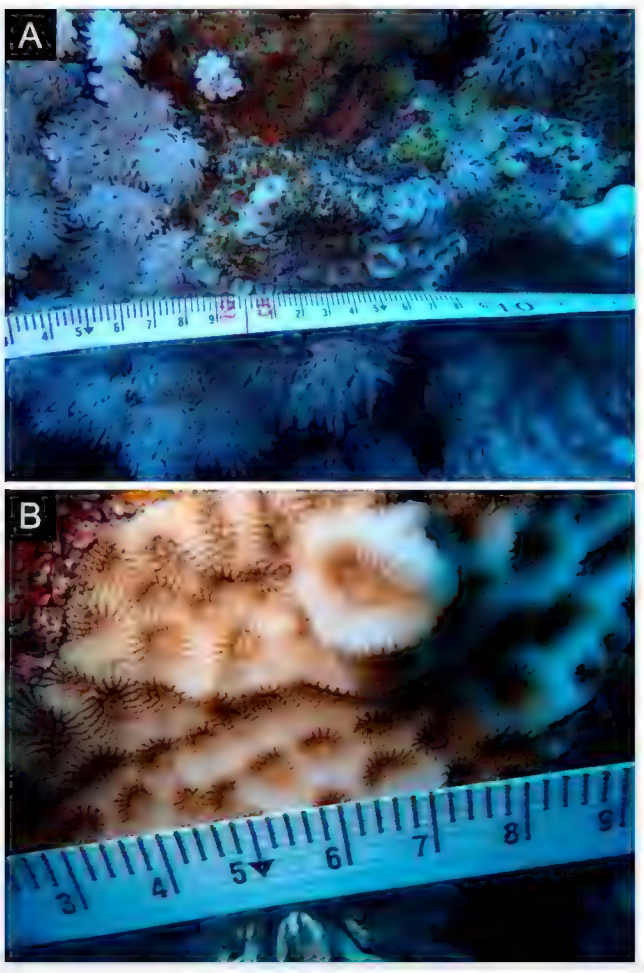

Figure 54. doi

The growth form and appearance of *Paramontastraea peresi* (bleached) in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Victor Sebastian Scharnhorst.

Family Pachyseridae Benzoni & Hoeksema, 2023

Pachyseris speciosa (Dana, 1846)

Material

a. scientificName: *Pachyseris speciosa*; scientificNameID: urn:lsid:marinespecies.org:taxname:207293; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 4.3; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed on a current-exposed shallow reef slope; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 3A768971-23E7-5C36-8967-953CEBE976C1

Conservation status: Least Concern

Family Pocilloporidae Gray, 1840

Pocillopora damicornis (Linnaeus, 1758)

Materials

a. scientificName: *Pocillopora damicornis*; scientificNameID: urn:lsid:marinespecies.org:taxname:206953; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 4.3; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed and photographed on a current-exposed shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 8944B391-0D83-5712-B799-E993F4C395CB

b. scientificName: *Pocillopora damicornis*; scientificNameID: urn:lsid:marinespecies.org:taxname:206953; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed deeper

reef slope; occurrenceRemarks: Observed and photographed on a current-exposed deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 273F8FFD-FC8E-5812-A673-94C97C178EFF

c. scientificName: *Pocillopora damicornis*; scientificNameID: urn:lsid:marinespecies.org:taxname:206953; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 1; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 19-10-2023; year: 2023; habitat: sheltered reef edge; occurrenceRemarks: Observed and photographed on a sheltered reef edge; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 8B4CF67F-4F1B-5EC6-94CA-E0105534355B

d. scientificName: *Pocillopora damicornis*; scientificNameID: urn:lsid:marinespecies.org:taxname:206953; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 3.7; maximumDepthInMeters: 4.75; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 25-10-2023; year: 2023; habitat: sheltered shallow reef slope; occurrenceRemarks: Observed and photographed on a sheltered shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 901CC9D9-D981-5A3E-A30C-DECEF3DE2D9C

Conservation status: Least Concern

Notes: Fig. 55 .

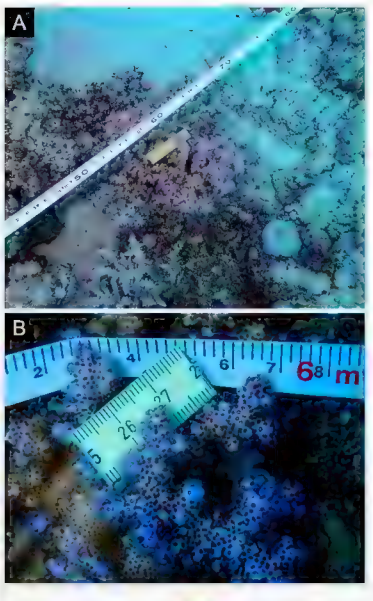

Figure 55. doi

The growth form and appearance of *Pocillopora damicornis* in the reef are shown in (**A**), while (**B**) provides a close-up of another colony. Photo credits: Theres Koch.

Pocillopora spp. Lamarck, 1816

Materials

a. scientificName: *Pocillopora* sp.; scientificNameID: urn:lsid:marinespecies.org:taxname: 206938; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Genus; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 4.3; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 24-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed and photographed on a current-exposed shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 2A1865D3-7947-50F8-AD24-4376BC19B8C9

b. scientificName: *Pocillopora* sp.; scientificNameID: urn:lsid:marinespecies.org:taxname: 206938; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Genus; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 54DC187B-C2A6-513B-A523-92FB9DB45903

c. scientificName: *Pocillopora* spp.; scientificNameID: urn:lsid:marinespecies.org:taxname: 206938; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Genus; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 1; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 20-10-2023; year: 2023; habitat: sheltered reef edge; occurrenceRemarks: Observed and photographed on a sheltered reef edge; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 44BEB770-3F8C-5692-9340-D500D18BD8AD

d. scientificName: *Pocillopora* spp.; scientificNameID: urn:lsid:marinespecies.org:taxname: 206938; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Genus; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 3.7; maximumDepthInMeters: 4.75; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 23-10-2023; year: 2023; habitat: sheltered shallow reef slope; occurrenceRemarks: Observed and photographed on a sheltered shallow reef slope; occurrenceStatus: present;

institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: DB92653B-5101-5E51-A81E-FBC97A29C659

e. scientificName: *Pocillopora* sp.; scientificNameID: urn:lsid:marinespecies.org:taxname:206938; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Genus; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 7.2; maximumDepthInMeters: 9.5; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 23-10-2023; year: 2023; habitat: sheltered deeper reef slope; occurrenceRemarks: Observed and photographed on a sheltered deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 5C43708F-388A-5B6E-A154-30EF4C0F089B

Conservation status: Unknown

Notes: Fig. 56; one distinguished morphotype.

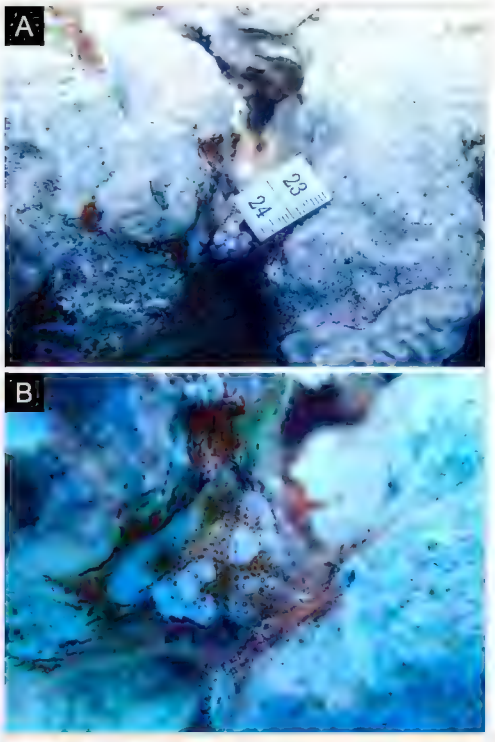

Figure 56. doi

The growth form and appearance of a small *Pocillopora* sp. in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Lewis Alan Jones.

Pocillopora verrucosa (Ellis & Solander, 1786)

Materials

a. scientificName: *Pocillopora verrucosa*; scientificNameID: urn:lsid:marinespecies.org:taxname:206954; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located

on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 1; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed reef edge; occurrenceRemarks: Observed and photographed on a current-exposed reef edge; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 8BD2833D-5FE9-56EA-8924-0C7F5F750448

b. scientificName: *Pocillopora verrucosa*; scientificNameID: urn:lsid:marinespecies.org:taxname:206954; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 4.3; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed and photographed on a current-exposed shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 9021FBEF-A721-5117-A0C1-9800CD3C96E3

c. scientificName: *Pocillopora verrucosa*; scientificNameID: urn:lsid:marinespecies.org:taxname:206954; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 457DA6B4-B72A-54F7-811D-C15B2EE87333

d. scientificName: *Pocillopora verrucosa*; scientificNameID: urn:lsid:marinespecies.org:taxname:206954; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 1; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 19-10-2023; year: 2023; habitat: sheltered reef edge; occurrenceRemarks: Observed and photographed on a sheltered reef edge; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: C992AD78-EB12-5C04-B3BA-2E64DA7DBE1A

e. scientificName: *Pocillopora verrucosa*; scientificNameID: urn:lsid:marinespecies.org:taxname:206954; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the

coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 3.7; maximumDepthInMeters: 4.75; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 23-10-2023; year: 2023; habitat: sheltered shallow reef slope; occurrenceRemarks: Observed and photographed on a sheltered shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 6DF9B283-01B4-532C-81E2-DE5D77C8559A

f. scientificName: *Pocillopora verrucosa*; scientificNameID: urn:lsid:marinespecies.org:taxname:206954; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 7.2; maximumDepthInMeters: 9.5; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 23-10-2023; year: 2023; habitat: sheltered deeper reef slope; occurrenceRemarks: Observed and photographed on a sheltered deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: E9E7737D-0034-5402-809C-91BDD70D54C3

Conservation status: Least Concern

Notes: Fig. 57 .

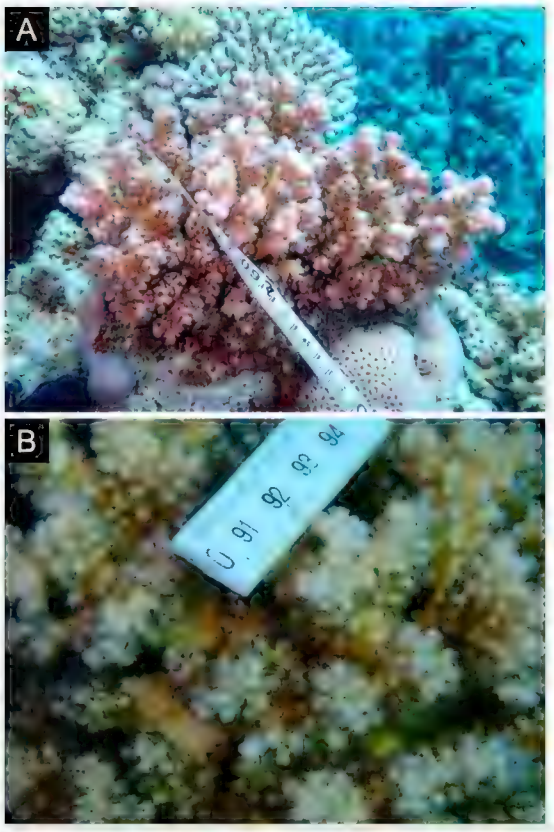

Figure 57. doi

The growth form and appearance of *Pocillopora verrucosa* in the reef are shown in (**A**), while (**B**) provides a close-up of another (bleached) colony. Photo credits: (**A**) Victor Sebastian Scharnhorst; (**B**) Theres Koch.

Seriatopora caliendrum Ehrenberg, 1834

Materials

a. scientificName: *Seriatopora caliendrum*; scientificNameID: urn:lsid:marinespecies.org:taxname:206969; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 4.3; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 24-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed and photographed on a current-exposed shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 73D92B49-615A-5879-B4E3-8CEA672CDAD3

b. scientificName: *Seriatopora caliendrum*; scientificNameID: urn:lsid:marinespecies.org:taxname:206969; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 24-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 5CA8A815-65F4-5EE2-8FD1-2D7F647D9F1E

c. scientificName: *Seriatopora caliendrum*; scientificNameID: urn:lsid:marinespecies.org:taxname:206969; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 7.2; maximumDepthInMeters: 9.5; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 23-10-2023; year: 2023; habitat: sheltered deeper reef slope; occurrenceRemarks: Observed and photographed on a sheltered deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 6655F17E-185C-5246-878F-3CB14913BF09

Conservation status: Near Threatened

Notes: Fig. 58 .

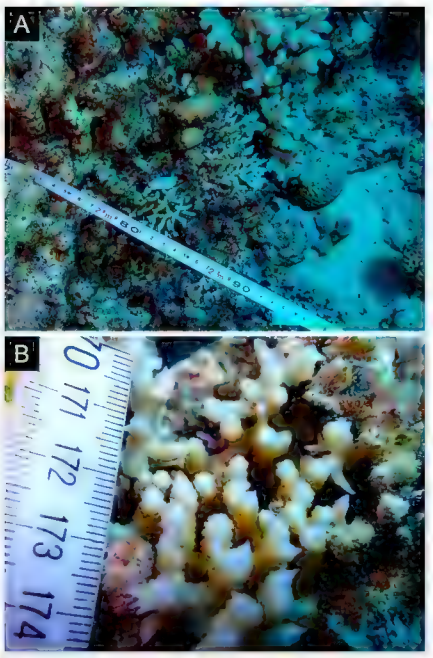

Figure 58. doi

The growth form and appearance of *Seriatopora caliendrum* (bleached) in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: (**A**) Theres Koch; (**B**) Victor Sebastian Scharnhorst.

Seriatopora hystrix Dana, 1846

Material

a. scientificName: *Seriatopora hystrix*; scientificNameID: urn:lsid:marinespecies.org:taxname:206973; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 4.3; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 24-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed and photographed on a current-exposed shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: FD87CA1E-191C-575F-B37F-E07E68738B02

Conservation status: Least Concern

Notes: Fig. 59 .

Stylophora cf. *kuehlmanni* Scheer & Pillai, 1983

Material

a. scientificName: *Stylophora* cf. *kuehlmanni*; scientificNameID: urn:lsid:marinespecies.org:taxname:206985; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt;

stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 3.7; maximumDepthInMeters: 4.75; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 25-10-2023; year: 2023; habitat: sheltered shallow reef slope; occurrenceRemarks: Observed and photographed on a sheltered shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 74DB88D8-0130-5811-90C3-A935DA8AFABD

Conservation status: Least Concern

Notes: Fig. 60; possible alternative: *Stylophora pistillata* (Esper, 1792).

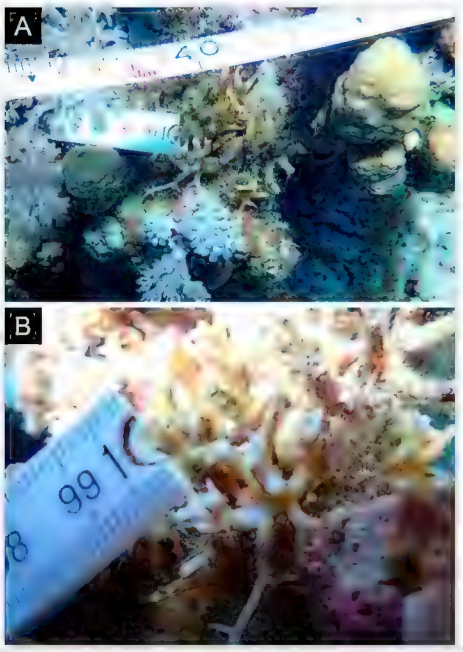

Figure 59. doi

The growth form and appearance of *Seriatopora hystrix* in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Joseph Wallace Daurella.

Stylophora pistillata (Esper, 1792)

Materials

a. scientificName: *Stylophora pistillata*; scientificNameID: urn:lsid:marinespecies.org:taxname:206982; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 1; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 24-10-2023; year: 2023; habitat: current-exposed reef edge; occurrenceRemarks: Observed and photographed on a current-exposed reef edge; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 7626B972-1299-56B7-8B02-EEA1A13E7C09

b. scientificName: *Stylophora pistillata*; scientificNameID: urn:lsid:marinespecies.org:taxname:206982; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 4.3; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 24-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed and photographed on a current-exposed shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 04797C93-7863-5C08-B3A1-7782E17D8ECF

c. scientificName: *Stylophora pistillata*; scientificNameID: urn:lsid:marinespecies.org:taxname:206982; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 3.7; maximumDepthInMeters: 4.75; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 25-10-2023; year: 2023; habitat: sheltered shallow reef slope; occurrenceRemarks: Observed and photographed on a sheltered shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: FC495889-314F-5878-A039-6AAA81F9F1A7

d. scientificName: *Stylophora pistillata*; scientificNameID: urn:lsid:marinespecies.org:taxname:206982; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 7.2; maximumDepthInMeters: 9.5; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 23-10-2023; year: 2023; habitat: sheltered deeper reef slope; occurrenceRemarks: Observed and photographed on a sheltered deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 1942CC36-5BBF-5263-93EA-7BE2A0AF84DF

Conservation status: Near Threatened

Notes: Fig. 61 .

Stylophora spp. Schweigger, 1820

Materials

a. scientificName: *Stylophora* spp.; scientificNameID: urn:lsid:marinespecies.org:taxname:204068; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Genus;

continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 3.7; maximumDepthInMeters: 4.75; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 25-10-2023; year: 2023; habitat: sheltered shallow reef slope; occurrenceRemarks: Observed and photographed on a sheltered shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 69AB4EB1-F811-559B-AEEE-C6FBCE3F29A0

b. scientificName: *Stylophora* sp.; scientificNameID: urn:lsid:marinespecies.org:taxname:204068; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Genus; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 7.2; maximumDepthInMeters: 9.5; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 25-10-2023; year: 2023; habitat: sheltered deeper reef slope; occurrenceRemarks: Observed and photographed on a sheltered deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 6A348F78-CE51-546F-A539-B976FCCBE39E

Conservation status: Unknown

Notes: Fig. 62; one distinguished morphotype.

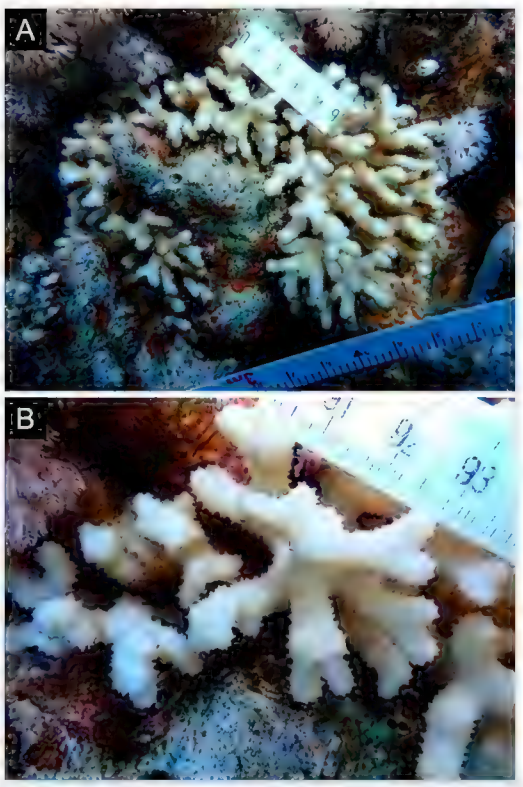

Figure 60. doi

The growth form and appearance of *Stylophora* cf. *kuehlmanni* (bleached) in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Joseph Wallace Daurella.

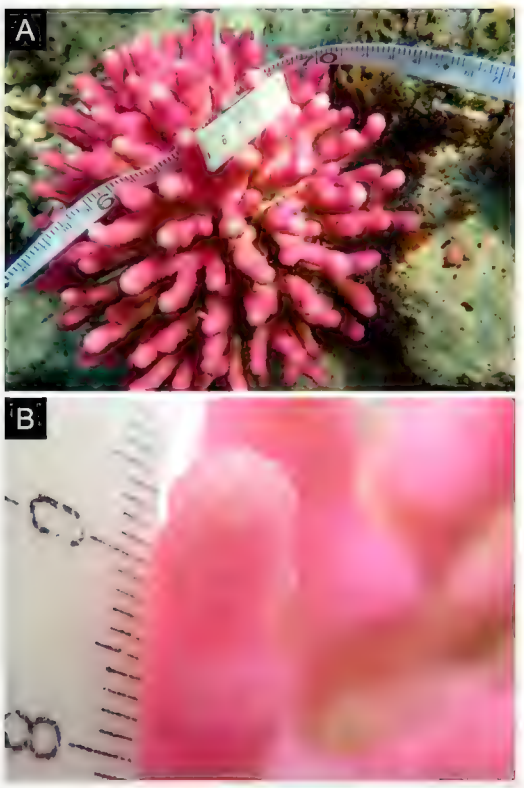

Figure 61. doi

The growth form and appearance of *Stylophora pistillata* in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Antonia Auer, Theda Schöchtner, Gözde Özer.

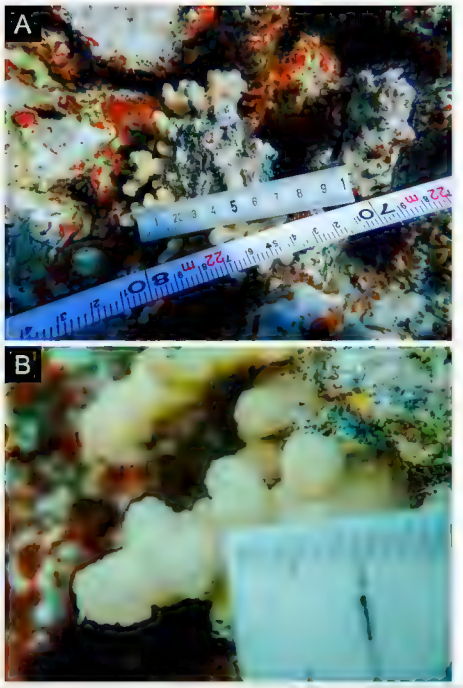

Figure 62. doi

Amongst the *Stylophora* colonies identified only to genus level, one morphotype (**A—B**) was distinguished. Photo credits: Theres Koch.

Stylophora subseriata (Ehrenberg, 1834)

Materials

a. scientificName: *Stylophora subseriata*; scientificNameID: urn:lsid:marinespecies.org:taxname:206980; kingdom: Animalia; phylum: Cnidaria; class:

Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 1; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 24-10-2023; year: 2023; habitat: current-exposed reef edge; occurrenceRemarks: Observed and photographed on a current-exposed reef edge; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 7E79C371-D733-5FAA-8BFD-55BEC7CF8112

b. scientificName: *Stylophora subseriata*; scientificNameID: urn:lsid:marinespecies.org:taxname:206980; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 19A420FA-59A0-5482-8717-8BA813543381

Conservation status: Least Concern

Notes: Fig. 63 .

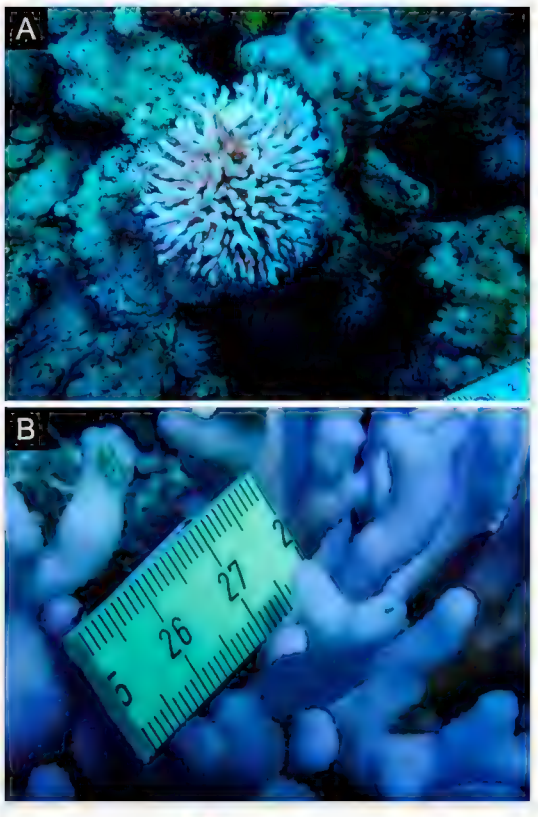

Figure 63. doi

The growth form and appearance of *Stylophora subseriata* in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Theres Koch.

Family Poritidae Gray, 1840

Porites rus (Forskål, 1775)

Materials

a. scientificName: *Porites rus*; scientificNameID: urn:lsid:marinespecies.org:taxname:207231; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 1; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 24-10-2023; year: 2023; habitat: current-exposed reef edge; occurrenceRemarks: Observed and photographed on a current-exposed reef edge; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 723910B3-124D-5523-8DCC-FC4AB8A548DC

b. scientificName: *Porites rus*; scientificNameID: urn:lsid:marinespecies.org:taxname:207231; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 4.3; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 24-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed and photographed on a current-exposed shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 11B77B77-255E-516C-BF7D-E2E198ED30DD

c. scientificName: *Porites rus*; scientificNameID: urn:lsid:marinespecies.org:taxname:207231; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 1CE202A1-387E-55AC-9B96-42AB11BDA1CD

d. scientificName: *Porites rus*; scientificNameID: urn:lsid:marinespecies.org:taxname:207231; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 1; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line

Intercept Transects; eventDate: 20-10-2023; year: 2023; habitat: sheltered reef edge; occurrenceRemarks: Observed and photographed on a sheltered reef edge; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: B9390B3A-C4FB-5967-B30B-B47B73B0E6C0

e. scientificName: *Porites rus*; scientificNameID: urn:lsid:marinespecies.org:taxname:207231; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 3.7; maximumDepthInMeters: 4.75; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 23-10-2023; year: 2023; habitat: sheltered shallow reef slope; occurrenceRemarks: Observed and photographed on a sheltered shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 5F8EEFED-9A77-5E76-9ACC-387F138767F7

f. scientificName: *Porites rus*; scientificNameID: urn:lsid:marinespecies.org:taxname:207231; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 7.2; maximumDepthInMeters: 9.5; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 23-10-2023; year: 2023; habitat: sheltered deeper reef slope; occurrenceRemarks: Observed and photographed on a sheltered deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: F69D6064-B51C-5343-A8E5-528626AAF490

Conservation status: Least Concern

Notes: Fig. 64 .

Porites spp. Link, 1807

Materials

a. scientificName: *Porites* spp.; scientificNameID: urn:lsid:marinespecies.org:taxname:206485; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Genus; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 1; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed reef edge; occurrenceRemarks: Observed and photographed on a current-exposed reef edge; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode:

Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 6029AA53-7CFC-56B1-9652-4C0E6AB5B56E

b. scientificName: *Porites* spp.; scientificNameID: urn:lsid:marinespecies.org:taxname:206485; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Genus; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 4.3; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed shallow reef slope; occurrenceRemarks: Observed and photographed on a current-exposed shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 13966F0F-B746-5AF7-9BD4-4EA9060B6EAA

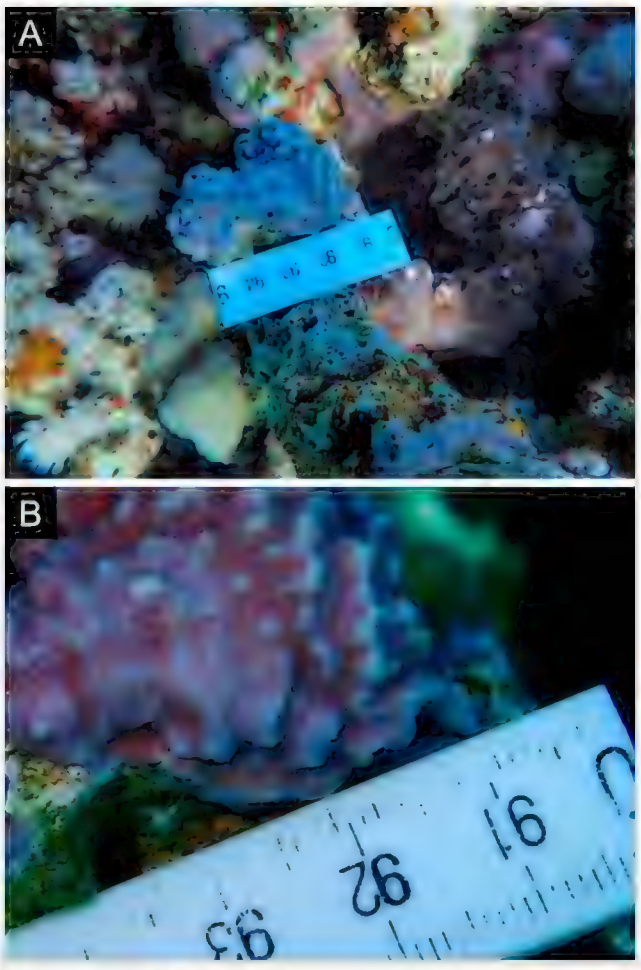

Figure 64. doi

The growth form and appearance of *Porites rus* in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Theres Koch.

c. scientificName: *Porites* spp.; scientificNameID: urn:lsid:marinespecies.org:taxname:206485; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Genus; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed deeper reef

slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 551F0ED2-48C7-5CB1-9DE1-9D31D4F30AD6

d. scientificName: *Porites* spp.; scientificNameID: urn:lsid:marinespecies.org:taxname: 206485; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Genus; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; verbatimDepth: 1; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 19-10-2023; year: 2023; habitat: sheltered reef edge; occurrenceRemarks: Observed and photographed on a sheltered reef edge; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 60A58FBC-57DF-5944-9469-D5B5B144DCA5

e. scientificName: *Porites* spp.; scientificNameID: urn:lsid:marinespecies.org:taxname: 206485; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Genus; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 3.7; maximumDepthInMeters: 4.75; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 23-10-2023; year: 2023; habitat: sheltered shallow reef slope; occurrenceRemarks: Observed and photographed on a sheltered shallow reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 239B0E32-5A53-5EB1-BA54-C9C8FD270439

f. scientificName: *Porites* spp.; scientificNameID: urn:lsid:marinespecies.org:taxname: 206485; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Genus; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 7.2; maximumDepthInMeters: 9.5; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 23-10-2023; year: 2023; habitat: sheltered deeper reef slope; occurrenceRemarks: Observed and photographed on a sheltered deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: C745D3A2-8AED-5F33-94EC-827970DD19A6

Conservation status: Unknown

Notes: Fig. 65; one distinguished morphotype.

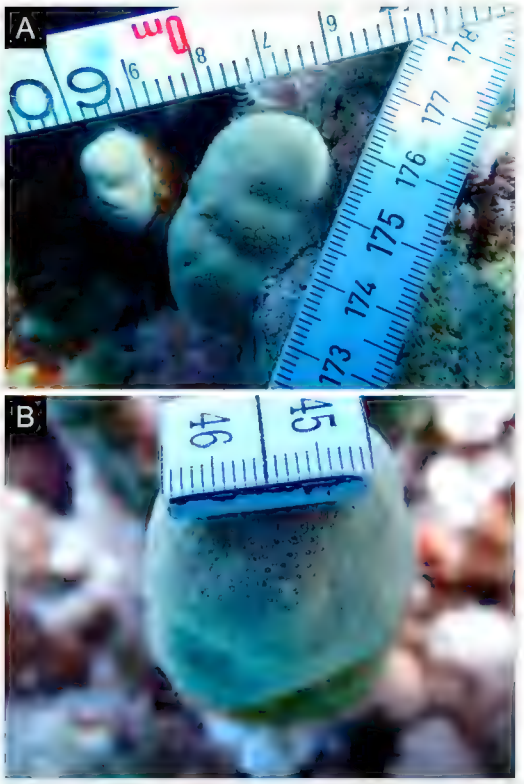

Figure 65. doi

Amongst the *Porites* colonies identified only to genus level, one morphotype (**A—B**) was distinguished. Photo credits: Joseph Wallace Daurella.

Family Psammocoridae Chevalier & L. Beauvais, 1987

Psammocora profundacella Gardiner, 1898

Materials

a. scientificName: *Psammocora profundacella*; scientificNameID: urn:lsid:marinespecies.org:taxname:207271; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Current-exposed coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 8.5; maximumDepthInMeters: 8.8; verbatimLatitude: N25°52.209′; verbatimLongitude: E034°25.181′; decimalLatitude: 25.87015; decimalLongitude: 34.4196833; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 22-10-2023; year: 2023; habitat: current-exposed deeper reef slope; occurrenceRemarks: Observed and photographed on a current-exposed deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 5F2A2A2C-5B7D-505C-98A1-36C1F7F9A216

b. scientificName: *Psammocora profundacella*; scientificNameID: urn:lsid:marinespecies.org:taxname:207271; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Species; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 7.2; maximumDepthInMeters: 9.5; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line

Intercept Transects; eventDate: 25-10-2023; year: 2023; habitat: sheltered deeper reef slope; occurrenceRemarks: Observed and photographed on a sheltered deeper reef slope; occurrenceStatus: present; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: 70CE6CA1-CBD7-5B36-A199-C3C573E0E829

Conservation status: Least Concern

Notes: Fig. 66 .

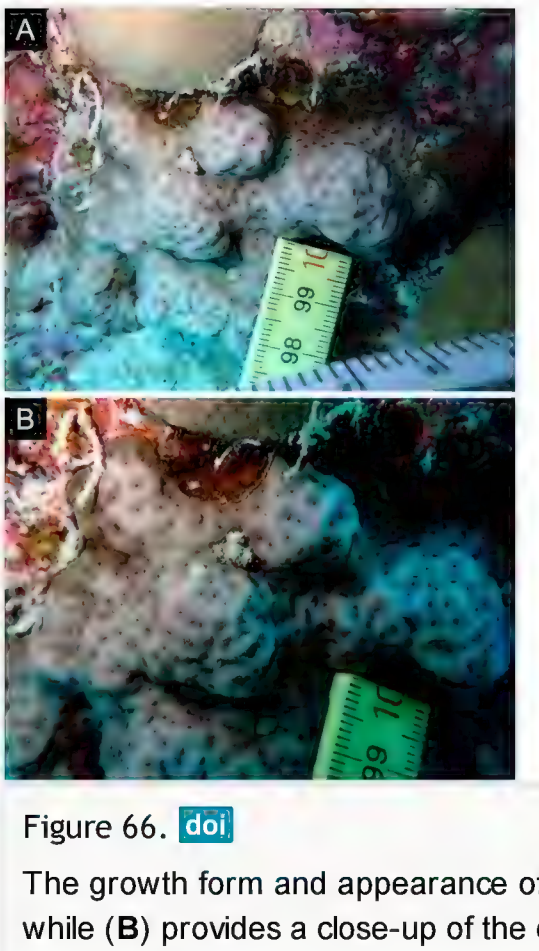

Figure 66. doi

The growth form and appearance of *Psammocora profundacella* in the reef are shown in (**A**), while (**B**) provides a close-up of the colony. Photo credits: Victor Sebastian Scharnhorst.

Psammocora sp. Dana, 1846

Material

a. scientificName: *Psammocora* sp.; scientificNameID: urn:lsid:marinespecies.org:taxname:204148; kingdom: Animalia; phylum: Cnidaria; class: Anthozoa; taxonRank: Genus; continent: Africa; waterBody: Red Sea; country: Egypt; stateProvince: Muhafazah al Bahr al Ahmar; locality: Sheltered coral reef located on the coastline of Egypt (Mangrove Bay), 29 km south of the coastal city of El Qoseir; minimumDepthInMeters: 3.7; maximumDepthInMeters: 4.75; verbatimLatitude: N25°52.183′; verbatimLongitude: E034°25.140′; decimalLatitude: 25.8697167; decimalLongitude: 34.419; geodeticDatum: WGS84; samplingEffort: 3 x 20 m Line Intercept Transects; eventDate: 25-10-2023; year: 2023; habitat: sheltered shallow reef slope; occurrenceRemarks: Observed on a sheltered shallow reef slope; institutionCode: UNIVIE; collectionCode: Coral_Reef-Mangrove_Bay-Egypt-2023; basisOfRecord: HumanObservation; occurrenceID: C76AFA44-6297-551A-926A-D2A8DD25EFB4

Conservation status: Unknown

Analysis

We observed and identified a total of 68 scleractinian coral species belonging to 29 genera and 14 families (Table 2). Amongst these, the families with the highest number of observed species were Merulinidae (25 species) and Acroporidae (11 species). Scleractinian coral colonies from the genera *Acropora* and *Porites*, as well as the species *Goniastrea edwardsi*, *Pocillopora verrucosa* and *Porites rus*, were found in all six habitats. Coral colonies described as *Porites* sp. dominated at the sheltered site across all depths and at the deeper reef slope of the current-exposed site, while *Pocillopora verrucosa* was the most abundant coral species at the current-exposed site's reef edge and shallow slope. At all depths, the current-exposed site was more species-rich than the sheltered site, with the deeper reef slope hosting 43 species, the highest richness observed, while the sheltered reef edge had the lowest, with 12 species (Fig. 67).

Table 2.

The observed occurrence of scleractinian coral species identified at both reef sites and across six habitats in Mangrove Bay, as indicated with an "X". Abbreviations: **reef edge** (**RE**, 1 m), **shallow reef slope** (**SR**, 4.3 m for the current-exposed site and 3.7–4.75 m for the sheltered site) and **deeper reef slope** (**DR**, 8.5–8.8 m for the current-exposed site and 7.2–9.5 m for the sheltered site).

Family	Genus and Species	Sheltered Reef			Current-exposed Reef		
		RE	SR	DR	RE	SR	DR
Acroporidae	*Acropora digitifera* (Dana, 1846)	X			X		
	Acropora hemprichii (Ehrenberg, 1834)		X			X	X
	Acropora sp. Oken, 1815	X	X	X	X	X	X
	Astreopora myriophthalma (Lamarck, 1816)					X	X
	Montipora crypta Turak, DeVantier & Veron, 2000						X
	Montipora danae Milne Edwards & Haime, 1851						X
	Montipora efflorescens Bernard, 1897					X	X
	Montipora cf. *grisea* Bernard, 1897					X	
	Montipora maeandrina (Ehrenberg, 1834)		X	X		X	X
	Montipora sp. Blainville, 1830		X			X	
	Montipora tuberculosa (Lamarck, 1816)	X		X	X	X	
Agariciidae	*Gardineroseris planulata* (Dana, 1846)		X				
	Leptoseris mycetoseroides Wells, 1954		X				
	Pavona diffluens (Lamarck, 1816)			X		X	
	Pavona sp. Lamarck, 1801	X	X			X	

Family	Genus and Species	Sheltered Reef			Current-exposed Reef		
		RE	SR	DR	RE	SR	DR
	Pavona varians (Verrill, 1864)	X	X	X		X	X
Astrocoeniidae	*Stylocoeniella* cf. *guentheri* (Bassett-Smith, 1890)					X	X
Coscinaraeidae	*Coscinaraea monile* (Forskål, 1775)			X		X	X
Dendrophylliidae	*Turbinaria mesenterina* (Lamarck, 1816)						X
Euphylliidae	*Galaxea fascicularis* (Linnaeus, 1767)					X	X
	Gyrosmilia interrupta (Ehrenberg, 1834)						X
Fungiidae	*Ctenactis* cf. *crassa* (Dana, 1846)		X	X		X	
Leptastreidae	*Leptastrea bottae* (Milne Edwards & Haime, 1849)						X
	Leptastrea inaequalis Klunziger, 1879					X	
	Leptastrea transversa Klunziger, 1879		X	X		X	X
Lobophylliidae	*Acanthastrea hemprichii* (Ehrenberg, 1834)						X
	Echinophyllia sp. Klunzinger, 1879					X	
	Echinophyllia cf. sp Klunzinger, 1879			X			X
	Oxypora sp. Kent, 1871						X
Merulinidae	*Cyphastrea chalcidicum* (Forskål, 1775)	X	X			X	X
	Cyphastrea kausti Bouwmeester & Benzoni, 2015		X			X	X
	Cyphastrea magna Benzoni & Arrigoni, 2017		X		X		
	Cyphastrea microphthalma (Lamarck, 1816)			X		X	X
	Cyphastrea sp. Milne Edwards & Haime, 1848					X	X
	Dipsastraea danai (Milne Edwards & Haime, 1857)					X	
	Dipsastraea faviaformis (Veron, 2000)						X
	Dipsastraea laxa (Klunzinger, 1879)						X
	Dipsastraea matthaii (Vaughan, 1918)				X		X
	Dipsastraea pallida (Dana, 1846)				X	X	X
	Dipsastraea sp. Blainville, 1830					X	
	Dipsastraea speciosa (Dana, 1846)					X	X
	Echinopora forskaliana (Milne Edwards & Haime, 1849)					X	X
	Echinopora fruticulosa (Ehrenberg, 1834)		X				X
	Favites abdita (Ellis & Solander, 1786)				X		

Family	Genus and Species	Sheltered Reef			Current-exposed Reef		
		RE	SR	DR	RE	SR	DR
	Favites cf. *complanata* (Ehrenberg, 1834)						X
	Favites rotundata Veron, Pichon & Wijsman-Best, 1977						X
	Favites vasta (Klunzinger, 1879)					X	
	Goniastrea edwardsi Chevalier, 1971	X	X	X	X	X	X
	Goniastrea pectinata (Ehrenberg, 1834)			X		X	X
	Goniastrea retiformis (Lamarck, 1816)					X	
	Goniastrea sp. Milne Edwards & Haime, 1848					X	
	Goniastrea stelligera (Dana, 1846)				X		
	Merulina scheeri Head, 1983						X
	Paramontastraea peresi (Faure & Pichon, 1978)						X
Pachyseridae	*Pachyseris speciosa* (Dana, 1846)					X	
Pocilloporidae	*Pocillopora damicornis* (Linnaeus, 1758)	X	X			X	X
	Pocillopora sp. Lamarck, 1816	X	X	X		X	X
	Pocillopora verrucosa (Ellis & Solander, 1786)	X	X	X	X	X	X
	Seriatopora caliendrum Ehrenberg, 1834			X		X	X
	Seriatopora hystrix Dana, 1846					X	
	Stylophora cf. *kuehlmanni* Scheer & Pillai, 1983		X				
	Stylophora pistillata (Esper, 1792)		X	X	X	X	
	Stylophora sp. Schweigger, 1820		X	X			
	Stylophora subseriata (Ehrenberg, 1834)				X		X
Poritidae	*Porites rus* (Forskål, 1775)	X	X	X	X	X	X
	Porites sp. Link, 1807	X	X	X	X	X	X
Psammocoridae	*Psammocora profundacella* Gardiner, 1898			X			X
	Psammocora sp. Dana, 1846		X				

The distribution of coral growth forms across the sheltered and current-exposed sites is depicted in Fig. 68 and Table 3. At the sheltered reef edge, submassive corals were most prevalent, followed by branching and encrusting growth forms. On the sheltered shallow reef slope, submassive corals remained dominant, followed by encrusting and branching corals, branching and digitate *Acropora* and free-living corals. At the sheltered deeper reef slope, massive corals became dominant, followed by encrusting, submassive, and branching corals, branching *Acropora* and free-living corals.

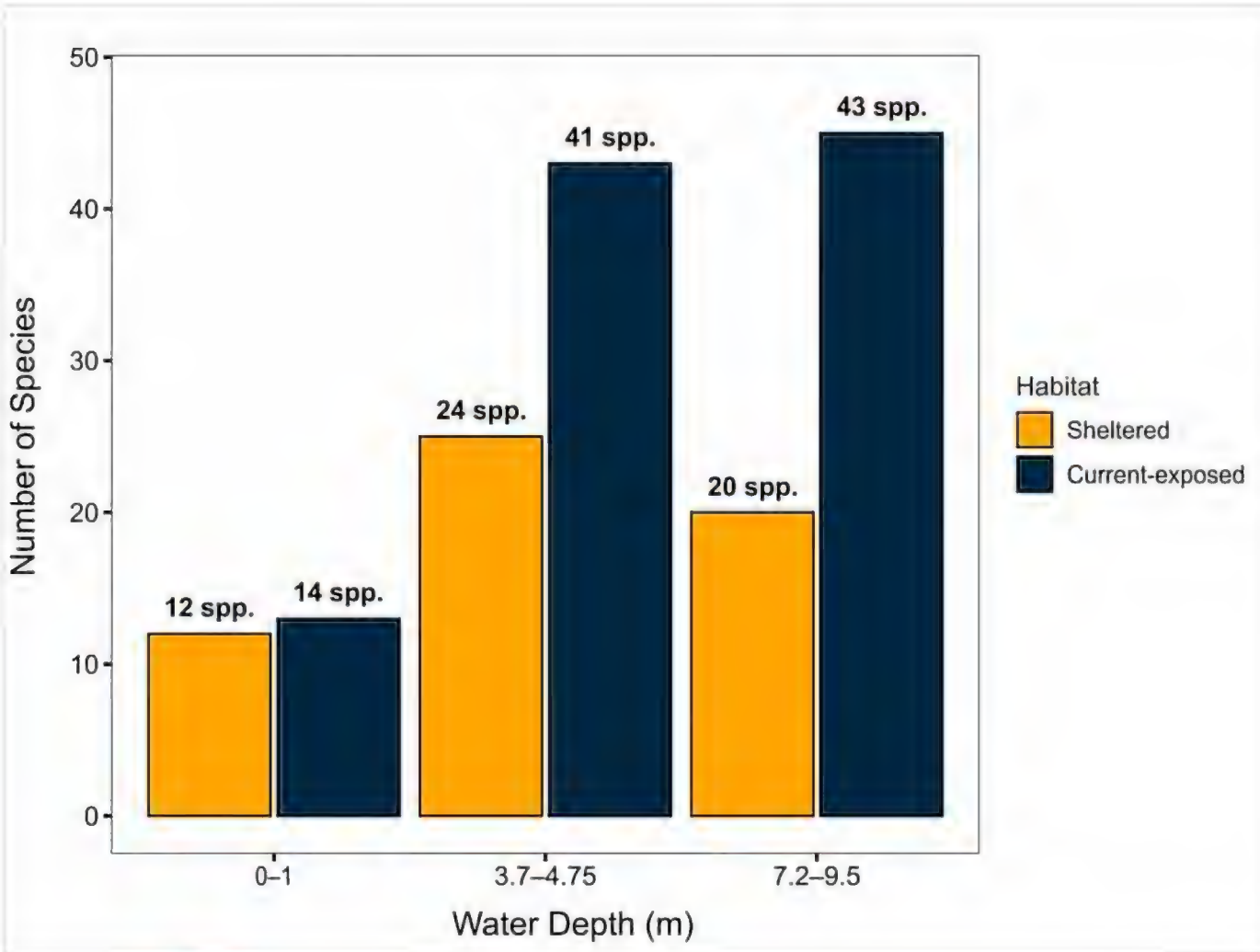

Figure 67. doi

The number of scleractinian coral species across the six different habitats at the study sites at Mangrove Bay.

Table 3.

Percentage Mean and Standard Deviation of Coral growth forms. Abbreviations: **reef edge** (**RE**, 1 m), **shallow reef slope** (**SR**, 4.3 m for the current-exposed site and 3.7–4.75 m for the sheltered site) and **deeper reef slope** (**DR**, 8.5–8.8 m for the current-exposed site and 7.2–9.5 m for the sheltered site).

Coral Growth Form	Sheltered Reef			Current-exposed Reef		
	RE	SR	DR	RE	SR	DR
Acropora Coral Branching	5.59 ± 3.43	6.14 ± 3.83	3.21 ± 3.43	4.16± 4.60	12.90 ± 9.97	16.89 ± 4.18
Acropora Coral Digitate	--	3.63 ± 3.96	--	--	2.30 ± 3.98	1.97 ± 3.42
Coral branching	37.70 ± 26.65	13.80 ± 4.45	4.52 ± 3.03	67.47 ± 9.35	27.30 ± 8.83	14.27 ± 7.45
Coral encrusting	1.41 ± 1.64	19.14 ± 17.25	14.38 ± 6.55	1.91 ± 1.06	21.40 ± 2.34	24.22 ± 11.63
Coral foliaceous	--	--	--	--	0.39 ± 0.68	0.33 ± 0.57

Coral Growth Form	Sheltered Reef			Current-exposed Reef		
	RE	SR	DR	RE	SR	DR
Coral massive	--	9.54 ± 14.35	72.14 ± 5.02	12.35 ± 17.75	19.18 ±13.46	27.58 ± 10.95
Coral Mushroom	--	1.82 ± 3.15	0.32 ± 0.55	--	0.42 ± 0.73	--
Coral submassive	54.02 ± 27.15	45.93 ± 25.47	5.45 ± 8.47	13.38 ± 16.59	16.11 ± 6.72	14.74 ± 10.66

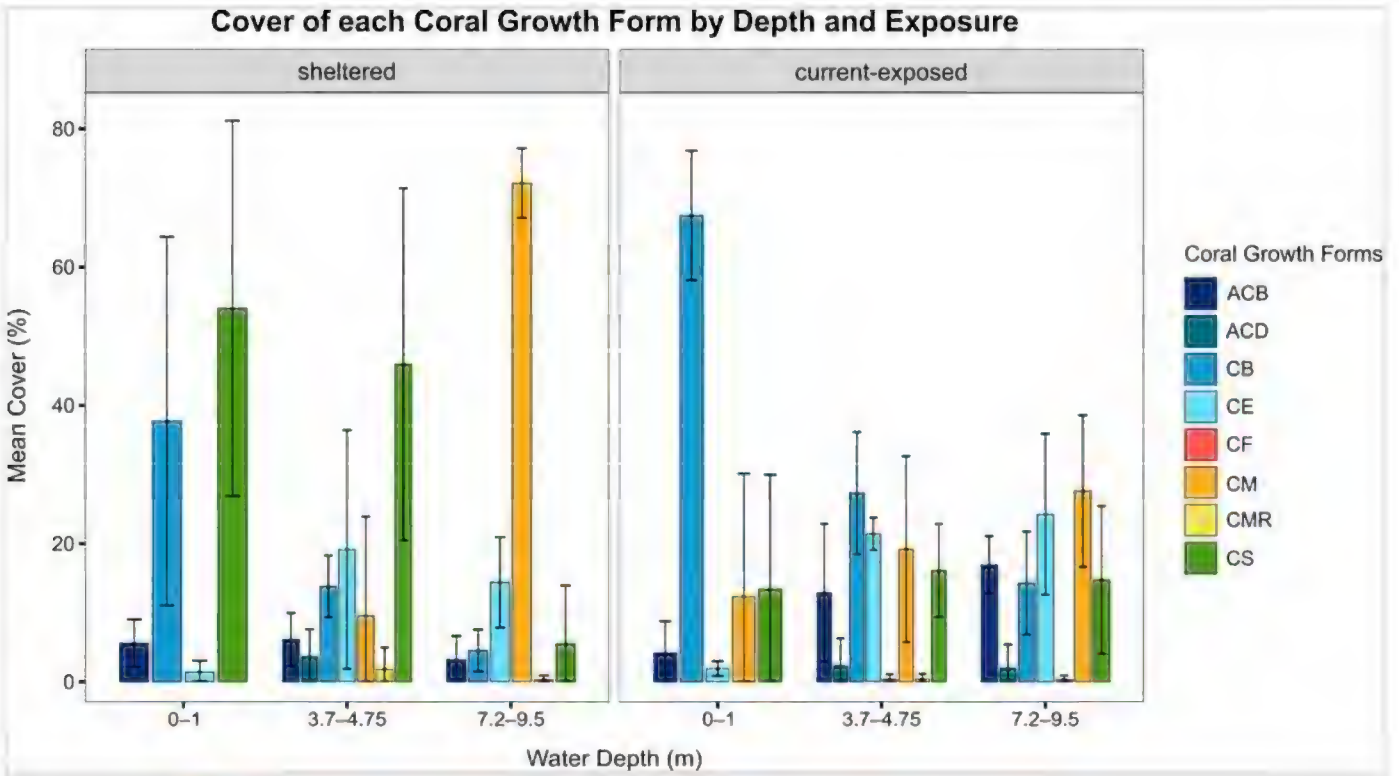

Figure 68. doi

Coral growth form distribution across six different habitats. The percentage of each growth form was calculated, based on its contribution to the total transect length for each habitat. Abbreviations: **ACB** (*Acropora* Coral Branching), **ACD** (*Acropora* Coral Digitate), **CB** (Coral Branching), **CE** (Coral Encrusting), **CF** (Coral Foliaceous), **CM** (Coral Massive), **CMR** (Coral Mushroom) and **CS** (Coral Submassive). Bars display the mean ± standard deviation. Error bars extending 0 were set to 0.

At the current-exposed reef edge, branching corals were most common, followed by submassive and massive corals, branching *Acropora* and encrusting corals. On the current-exposed shallow reef slope, branching corals remained dominant, followed by encrusting, massive and submassive corals, branching and digitate *Acropora*, free-living and foliaceous corals. At the deeper reef slope, massive corals were most abundant, followed by encrusting corals, branching *Acropora*, submassive and branching corals, digitate *Acropora* and foliaceous corals (Fig. 68; Table 3).

In addition to examining coral diversity, distribution and coral morphology, we considered the conservation status of the identified coral species. According to the latest IUCN Red List assessment from November 2024, which evaluated 892 warm-water reef-building

coral species, 44% are classified as threatened (International Union for Conservation of Nature (IUCN) 2024). In our evaluation of 68 coral species, we found that 29 species (43%) are categorised as "Least Concern", 18 species (26%) as "Near Threatened", six species (9%) as "Vulnerable" and 15 (22%) were of unknown conservation status. The species classified as "Vulnerable" include *Acropora hemprichii*, *Montipora maeandrina*, *Acanthastrea hemprichii*, *Dipsastraea faviaformis*, *Pavona diffluens* and *Turbinaria mesenterina*.

The relative percentage of biogenic and abiogenic components also showed variations across all six habitats (Fig. 69; Table 4). At the sheltered reef edge, algal cover was most prevalent, followed by scleractinian coral cover, *Millepora* cover, dead scleractinian coral cover, other benthic fauna cover and soft coral cover. On both the sheltered shallow and deeper reef slope, algal cover remained dominant, followed by, scleractinian coral cover, soft coral cover, dead scleractinian coral cover, other benthic fauna cover, bare substrate cover and *Millepora* cover.

Table 4.

Percentage Mean and Standard Deviation of benthic life categories. Abbreviations: **reef edge** (**RE**, 1 m), **shallow reef slope** (**SR**, 4.3 m for the current-exposed site and 3.7–4.75 m for the sheltered site) and **deeper reef slope** (**DR**, 8.5–8.8 m for the current-exposed site and 7.2–9.5 m for the sheltered site).

Category	**Sheltered Reef**			**Current-exposed Reef**		
	RE	SR	DR	RE	SR	DR
Algae	36.13 ± 10.59	44.61 ± 15.89	45.43 ± 6.09	53.70 ± 8.85	28.65 ± 6.38	31.64 ± 17.07
Dead Scleractinian Corals	8.79 ± 8.88	10.54 ± 7.52	3.96 ± 3.90	0.18 ± 0.30	8.91 ± 4.55	4.26 ± 5.00
Millepora	20.86 ± 2.69	0.60 ± 1.04	0.46 ± 0.58	27.92 ± 14.05	1.57 ± 2.68	0.38 ± 0.54
Other Fauna	3.64 ± 1.83	3.93 ± 4.09	2.73 ± 1.97	0.72 ± 0.25	4.70 ± 2.14	1.63 ± 1.02
Scleractinian Corals	30.31 ± 13.79	23.35 ± 10.93	31.29 ± 1.17	17.49 ± 5.96	34.58 ± 11.11	29.53 ± 1.62
Soft Corals	0.27 ± 0.44	14.20 ± 6.39	14.27 ± 2.56	--	9.15 ± 8.05	22.92 ± 10.68
Substrate	--	2.77 ± 3.26	1.85 ± 2.83	--	15.56 ± 19.57	9.64 ± 14.51

At the current-exposed reef edge, algal cover was the most common, followed by *Millepora* cover, scleractinian coral cover, other benthic fauna cover and dead scleractinian coral cover. On the current-exposed shallow reef slope, scleractinian coral

cover was most abundant, followed by algal cover, bare substrate cover, soft coral cover, dead scleractinian coral cover, other benthic fauna cover and *Millepora* cover. On the current-exposed deeper reef slope, algal cover was dominant, followed by scleractinian coral cover, soft coral cover, bare substrate cover, dead scleractinian coral cover, other benthic fauna cover and *Millepora* cover (Fig. 69; Table 4).

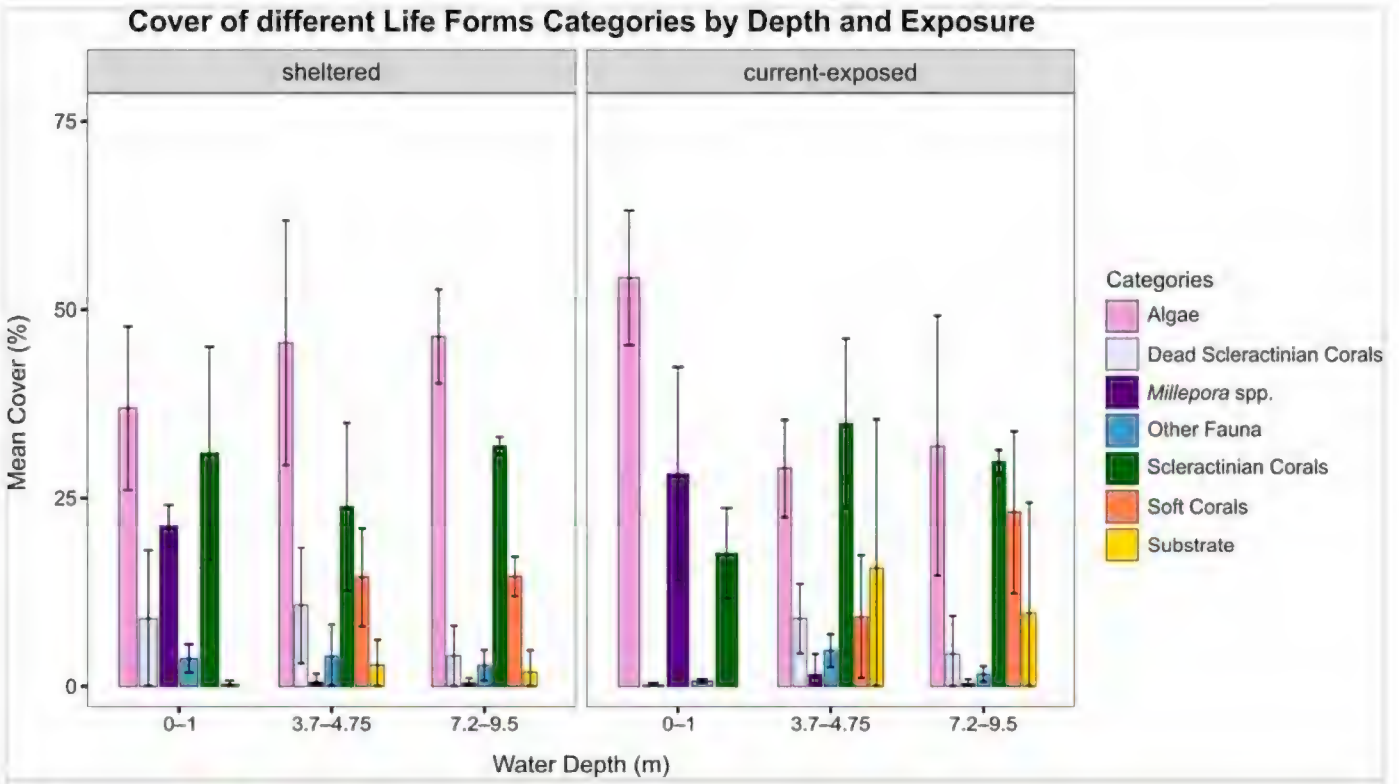

Figure 69. doi

Distribution of various life form categories across the six habitats. Percentages were calculated, based on each category's contribution to the total transect length per habitat (excluding gaps). The "**Algae**" category comprises algae assemblages, coralline algae, macroalgae and turf algae. The "**Dead Scleractinian Coral**" category includes dead corals as well as dead corals overgrown with algae. The "***Millepora* spp**." category encompasses *Millepora dichotoma*, *Millepora exaesa* and *Millepora platyphylla*. The "**Benthic Fauna**" category combines other species, such as molluscs, echinoderms and sponges. The " **Scleractinian Corals**" category includes all living hard corals. The "**Soft Corals**" category encompasses all octocorals that intersected the transect line, including those identified to the genus level, such as *Heteroxenia* and *Rhytisma*. The "**Substrate**" category comprises coral rubble, rock and sand. Bars display the mean ± standard deviation. Error bars extending 0 were set to 0.

Taxonomic Uncertainties

Species identification was primarily based on photographic evidence, which, though generally reliable, lacks the precision of genetic analysis. In our transects, we identified coral colonies from the genus *Stylocoeniella* (Fig. 19), which includes two recognised species in the Indo-Pacific: *S. guentheri* and *S. armata* (Veron and Pichon 1976, Scheer and Pillai 1983, Sheppard and Sheppard 1991). Both species display encrusting growth forms with widely-spaced corallites. To distinguish between the two species, one should examine the size of the two septa cycles. In *S. guentheri*, the two septa cycles are unequal in size, whereas in *S. armata*, they are equal in size (Scheer and Pillai 1983,

Sheppard and Sheppard 1991). Based on our photographs, we identified the colonies as *S.* cf. *guentheri*, acknowledging *S. armata* as a possible alternative identification, based on the morphological traits.

Furthermore, we recorded colonies from the genus *Ctenactis* (Fig. 24). We considered two possible species: *C. crassa* and *C. echinata*, both of which are free-living corals with elongated polyps and septal teeth (Veron and Pichon 1979, Hoeksema 1989). They primarily differ in stomatism, with *C. crassa* being polystomatous and *C. echinata* monostomatous. Based on the absence of multiple polyp mouths observed in the images, we tentatively identified the colonies as *C. cf. crassa*, though *C. echinata* remains a plausible alternative.

Paraechinophyllia, a genus first described by Arrigoni et al. (2019), shares many morphological similarities with *Echinophyllia*, particularly in terms of its encrusting growth form and corallite structure. Molecular analysis is required to definitively distinguish between these genera, as traditional morphological traits may not provide sufficient resolution. Therefore, it is possible that some colonies we identified as *Echinophyllia* (Fig. 30) could belong to the genus *Paraechinophyllia*.

We observed colonies from the genus *Stylophora*, identifying multiple species (Figs 60, 61, 63). *Stylophora* species in the Red Sea and the Indian Ocean display significant morphological variability, with six regional ecotypes (Scheer and Pillai 1983, Arrigoni et al. 2016a), including *S. kuehlmanni* (Fig. 60). *S. kuehlmanni* typically forms prostrate colonies with thin, irregular, anastomosing branches and tubular corallites, giving the branches a spiny appearance, while *S. pistillata* features thicker branches and primarily conical or hooded corallites (Fig. 61). Based on the thinner branches and prominent corallite hoods in our observations, we identified some colonies of *Stylophora* as *S.* cf. *kuehlmanni*, though we also recognise *S. pistillata* as a plausible alternative for these colonies given their morphological characteristics.

Discussion

This study focused on the coral diversity and coral growth form distribution at Mangrove Bay, a reef system along the Egyptian coastline of the northern Red Sea. Through comprehensive site surveys, we identified a total of 68 hard coral species, highlighting the ecological and taxonomic richness of this region. Notably, the genera *Acropora*, *Goniastrea*, *Pocillopora* and *Porites* were amongst the most frequently observed.

The overall trend showed that, at both the sheltered and current-exposed sites, scleractinian coral diversity and cover were lower at the reef edge than at the deeper reef slope (Fig. 67, Fig. 69, Table 4). In shallower waters, environmental conditions pose challenges for corals. High turbulence, stronger wave or current action, intense sunlight exposure and elevated water temperatures limit coral growth, whereas rapidly growing species, such as algae (e.g. coralline algae or macro algae), are less impacted by such conditions (Sheppard 1980, Bang et al. 2021). Amongst the species adapted to these

more challenging conditions are Hydrozoans of the genus *Millepora*. The three species observed in our study (*Millepora dichotoma*, *Millepora exaesa* and *Millepora platyphylla*) were notably abundant at the reef edge, particularly on the current-exposed side, where high light availability and strong currents provide a favourable habitat (Dubé et al. 2017).

At depths of 7–9.5 m, environmental conditions generally stabilise, characterised by reduced wave energy, diminished sunlight intensity and consistent light availability (Sheppard 1980). These factors promote coral growth and coverage, enabling the development of larger coral colonies (Chadwick and Morrow 2011, Doropoulos et al. 2020). When examining the coverage of dead corals, we found that it peaked at intermediate depths at both study sites, with the shallow reef slopes showing a higher cover of dead corals than the reef edges (Fig. 69; Table 4).

Soft coral cover increased with depth at both study sites. No soft coral cover was observed at the reef edge (Fig. 69; Table 4). Amongst the octocorals identified to the genus level, most belonged to the genus *Heteroxenia*. These corals were particularly abundant on the deeper reef slopes. This distribution can likely be explained by the preference of soft corals from the family *Xeniidae*, such as *Heteroxenia*, for areas with moderate current exposure (e.g. the deeper reef slope) as described by Fabricius and Alderslade (2001).

To thoroughly understand reef ecosystems, we aimed to not only quantify coral diversity, but also areas covered only by bare substrate such as sand patches or rock. The proportions of substrate coverage play an important role in the survival and growth of benthic organisms, influencing species distributions and community dynamics (Kramer et al. 2020). In our case, bare sand and rock surfaces were most prevalent at intermediate depths and completely absent at both reef edges (Fig. 69; Table 4). This suggests that the shallow reef slope experienced weaker currents than the reef edge, which allowed bare substrate to persist (Heyward and Radford 2019). In contrast, at greater depths, environmental conditions become more stable. Consequently, exposed substrate diminishes as the biotic cover, such as coral growth, increases (Chadwick and Morrow 2011, Doropoulos et al. 2020, Bang et al. 2021).

Including substrate coverage as an abiogenic component in assessments of coral diversity across different reef habitats provides a more comprehensive characterisation of reef ecosystems and it serves as a valuable descriptor. It enables researchers to contextualise diversity data and supports further investigations, such as evaluating habitat suitability for specific species or analysing the structural contributions of abiogenic features (Fisher et al. 2015, Roberts et al. 2015). For instance, the amount of substrate coverage can influence the survival and growth of benthic organisms, such as corals, which, in turn, affects species distribution (Duckworth 2015, Sheppard et al. 2017).

Light availability, as well as wave and current exposure, not only influence coral abundance and diversity, but also coral morphology and the distribution of coral growth forms along a reef depth gradient (Halid et al. 2016, Chow et al. 2019, Kramer et al. 2020). In our study, branching corals, such as those from the genera *Acropora* and *Pocillopora*

, were observed at all depths, but were particularly abundant at the reef edge, where they accounted for over two-thirds of the total scleractinian coral cover at the current-exposed site (Fig. 68; Table 3). Encrusting corals, including those of the genera *Cyphastrea* and *Montipora*, as well as massive corals like the genus *Goniastrea*, exhibit a more flattened morphology, likely to optimise light capture in low-light environments (Kahng et al. 2010, Roberts et al. 2015), became increasingly common on both shallow and deeper reef slopes. On the deeper reef slope at the sheltered site, massive corals accounted for nearly three-quarters of all living corals. Submassive corals, primarily from the genus *Porites*, were especially abundant at the reef edge of the sheltered site, where they constituted over 50% of the live scleractinian coral cover. This genus is recognised for its ability to thrive under the abundant sunlight available at shallower depths and shows greater tolerance to stressors like thermal stress, particularly at the reef edge (Bruckner and Dempsey 2015).

Comparing our data to species lists by Ammar (2011), Mohammed (2012), Berumen et al. (2019) and Hussein et al. (2023), it becomes clear that the species present in Mangrove Bay are a typical representation of Red Sea coral communities. However, there are some distinct differences between previous checklists and ours. Some species, or even genera, found in Mangrove Bay, such as the genus *Dipsastraea* or the species *Goniastrea edwardsi*, were not listed by Ammar (2011), Mohammed (2012) or Hussein et al. (2023). Conversely, certain species and genera recorded in these previous checklists, such as the genera *Alveopora*, *Euphyllia*, *Fungia* and *Mycedium* and the species *Lobophyllia corymbosa*, were not present in our checklist. These observed differences may be the result of the different sampling protocols employed and habitats investigated. For example, Ammar (2011) conducted a survey across a wide range of depths (1–50 m); Mohammed (2012) employed direct coral sampling and laboratory analysis and included surveying reef flats and sandy patches; Hussein et al. (2023) focused on the impact of urbanisation on coral species diversity by investigating sites affected by human activities. However, the presence and absence of these taxa may also reflect genuine differences, potentially influenced by other factors, such as local environmental conditions.

The data from our study indicate the frequent presence of hard coral species across habitats within Mangrove Bay. Most species were found in both current-exposed and sheltered reef edges, demonstrating their tolerance to various environmental conditions. However, 26 species were found in only one of the six habitats. *Gardineroseris planulata*, *Leptoseris mycetoseroides*, *Stylophora* cf. *kuehlmanni* and *Psammocora* sp. were found exclusively at the sheltered shallow reef slope. *Favites abdita* and *Goniastrea stelligera* were found exclusively at the current-exposed reef edge. *Montipora* cf. *grisea*, *Leptastrea inaequalis*, *Echinophyllia* spp., *Dipsastraea danai*, *Dipsastraea* spp., *Favites vasta*, *Goniastrea retiformis*, *Goniastrea* sp., *Pachyseris speciosa* and *Seriatopora hystrix* were detected only at the current-exposed shallow reef slope. *Montipora crypta*, *Montipora danae*, *Turbinaria mesenterina*, *Gyrosmilia interrupta*, *Leptastrea bottae*, *Acanthastrea hemprichii*, *Oxypora* sp., *Dipsastraea faviaformis*, *Dipsastraea laxa*, *Favites* cf. *complanata*, *Favites rotundata*, *Merulina scheeri* and *Paramontastraea peresi* were confined to the current-exposed deeper reef slope.

Conclusion

Mangrove Bay's reefs appear to be in relatively good condition and serve as an important site for studying coral reef biodiversity. In this initial survey, we identified 68 scleractinian coral species across six habitats at two reef locations, using Line Intercept Transects and photography, resulting in the first comprehensive record of coral diversity at Mangrove Bay. Genera such as *Acropora*, *Porites* and *Pocillopora* dominated multiple habitats. The observed species richness peaked at the deeper current-exposed reef slope, with 43 coral species and was the lowest at the sheltered reef edge, with 12 species. Habitat-specific patterns in coral growth forms were observed, with branching corals being particularly abundant at reef edges, while encrusting and massive-growing corals became more prevalent with increasing depth. Assessment of benthic abiogenic and biogenic reef components showed widespread algal cover, while *Millepora* coverage peaked at the reef edge, soft coral cover increased with depth and bare substrate was most common at intermediate depths. Conservation evaluations indicated that 43% of coral species are classified as "Least Concern" and 9% are classified as "Vulnerable". Future studies should aim to survey additional habitats within the Mangrove Bay area to provide a more complete picture of local biodiversity. These studies should also include associated fauna and flora, such as reef fish diversity, to gain a holistic understanding of the ecosystem. This report establishes a baseline for monitoring coral species diversity along the Egyptian coastline, thereby supporting long-term conservation initiatives. By providing a detailed overview of the coral species present, this study offers essential data for policy-makers to develop strategies to protect these ecosystems. As highlighted by Reyserhove et al. (2020), species checklists, including the one presented in this study, are vital for understanding biological changes and for designing effective conservation strategies, as they offer detailed species data and associated metadata.

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Author contributions

Conceptualisation (AI, LAJ, MZ), Data curation (AA, AI, CS, GÖ, JW, LAJ, MZ, SS, TK, TS, VS), Formal Analysis (AA, AI, CS, GÖ, JW, LAJ, MZ, SS, TK, TS, VS), Funding aquisition (AI, LAJ, MZ), Investigation (AA, AI, CS, GÖ, JW, LAJ, MZ, SS, TK, TS, VS), Methodology (AI, LAJ, MZ, TK), Project administration (AI, MZ), Resources (AI, MZ), Software (AA, AI, CS, GÖ, LAJ, MZ, TK, TS, VS), Supervision (AI, LAJ, MZ), Visualisation (LAJ, TK, SS), Writing - original draft (TK), Writing - review & editing (AA, AI, CS, GÖ, LAJ, MZ, TK, TS, VS).

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